

Service Manual

PIONEER
The Art of Entertainment

DEH-P825R/EW



ORDER NO.
CRT1805

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P825R EW

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH ID-LOGIC TUNER

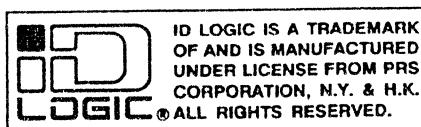
DEH-P825 UC

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH FM/AM TUNER

DEH-P823 ES

MULTI-CD CONTROL CD PLAYER WITH ID-LOGIC TUNER

DEX-P99 UC



COMPACT
disc
DIGITAL AUDIO

NOTE:

- See the service manual CX-597(CRT1811) for the CD mechanism description, disassembly and circuit description.
- The CD mechanism employed in this model is one of CX-597 series.

CONTENTS

1. SAFETY INFORMATION	2	8. ELECTRICAL PARTS LIST	29
2. SPECIFICATIONS	3	9. LCD	38
3. OPERATIONS AND CONNECTION	5	10. BLOCK DIAGRAM	41
4. DISASSEMBLY	9	11. CIRCUIT DIAGRAM AND PATTERN	43
5. ADJUSTMENT	10	12. EXPLODED VIEW AND PARTS LIST	82
6. TEST MODE	12	13. PACKING METHOD	88
7. IC INFORMATION	16		

● CD Player Service Precautions

1. For pickup unit(CGY1070) handling, please refer to "Disassembly"(CX-597 Service Manual CRT1811). During replacement, handling precautions shall be taken to prevent an electrostatic discharge(protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

1. SAFETY INFORMATION

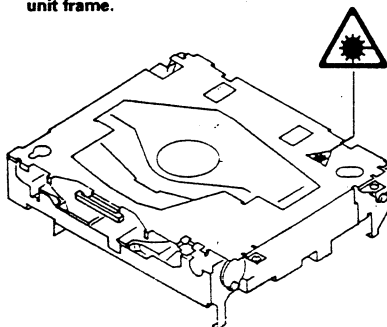
1.1 (DEH-P825R/EW)

1. Safety Precautions for those who Service this Unit.

- When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

- During repair or tests, minimum distance of 13cm from the focus lens must be kept.
- During repair or tests, do not view laser beam for 10 seconds or longer.
- A "CLASS 1 LASER PRODUCT" label is affixed to the rear of the player.
- The triangular label is attached to the mechanism unit frame.



4. Specifications of Laser Diode

Specifications of laser radiation fields to which human access is possible during service.

Wavelength = 800 nanometers

1.2 (DEH-P825/UC,DEX-P99/UC)

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5). When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

2. SPECIFICATIONS

General (DEH-P825R/EW)

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	8.0 A
Dimensions	
(mounting size)	178 (W) × 50 (H) × 157 (D) mm
(front face)	188 (W) × 58 (H) × 16 (D) mm
Weight	1.7 kg

General (DEH-P825/UC, P823/ES, DEX-P99/UC)

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Max. current consumption (DEH-P825/UC, P823/ES)	8.0 A
Max. current consumption (DEX-P99/UC)	1.0 A
Dimensions	
(DIN) (chassis)	178 (W) × 50 (H) × 157 (D) mm
(nose)	188 (W) × 58 (H) × 16 (D) mm
(D) (chassis)	178 (W) × 50 (H) × 162 (D) mm
(nose)	170 (W) × 46 (H) × 11 (D) mm
Weight (DEH-P825/UC, P823/ES)	1.7 kg (3.7 lbs)
Weight (DEX-P99/UC)	1.6 kg (3.5 lbs)

Amplifier (DEH-P825R/EW, P825/UC, P823/ES)

Continuous power output is 15 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD (DEH-P825/UC, P823/ES).	
Maximum power output	35 W × 4
Continuous power output (DEH-P825R/EW)	22 W × 4
	(DIN45324, +B=14.4 V)
Load impedance	4 Ω (4 — 8 Ω allowable)
Preout output level/output impedance	500 mV/ 1 kΩ
Loudness contour	+10 dB (100 Hz), +7 dB (10 kHz)
	(volume: -30 dB)

Amplifier (DEX-P99/UC)

Maximum preout output level	4 V
Preout impedance	1 kΩ
Loudness contour	+10 dB (100 Hz), +7 dB (10 kHz)
	(volume: -30 dB)

Equalizer

Tone controls (parametric)	
Frequency (Bass)	50 Hz, 80 Hz, 125 Hz, 200 Hz
(Treble)	3.15 kHz, 5 kHz, 8 kHz, 12.5 kHz
Equalization range	±12 dB
Graphic Equalizer	
Frequency	50 Hz, 80 Hz, 125 Hz, 200 Hz, 315 Hz, 500 Hz, 800 Hz, 1.25 kHz, 2 kHz, 3.15 kHz, 5 kHz, 8 kHz, 12.5 kHz
Equalization range	±12 dB
Sub-woofer output	
Crossover frequency	50 Hz, 80 Hz, 125 Hz
Crossover slope	-18 dB/oct

CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal format	Sampling frequency: 44.1 kHz
	Number of quantization bits: 16; linear
Frequency characteristics	5 — 20,000 Hz (± 1 dB)
Signal-to-noise ratio	94 dB (1 kHz) (IHF-A network)
Dynamic range	90 dB (1 kHz)
Number of channels	2 (stereo)

AM Tuner (DEH-P825/UC, DEX-P99/UC)

Frequency range	530 — 1,710 kHz
Usable sensitivity	18 μ V (25 dB) (S/N: 20 dB)
Selectivity	50 dB (± 10 kHz)

AM Tuner (DEH-P823/ES)

Frequency range	530 — 1,710 kHz (10 kHz)
	531 — 1,602 kHz (9 kHz)
Usable sensitivity	18 μ V (25 dB) (S/N: 20dB)
Selectivity	50 dB (± 10 kHz)
	50 dB (± 9 kHz)

FM tuner

Frequency range (DEH-P825R/EW, P823/ES)	87.5 — 108 MHz
Frequency range (DEH-P825/UC, DEX-P99/UC)	87.9 — 107.9 MHz
Usable sensitivity	11 dBf (1.0 μ V/75 Ω , mono, S/N: 30 dB)
50 dB quieting sensitivity	16 dBf (1.7 μ V/75 Ω , mono)
Signal-to-noise ratio	70 dB (IHF-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 — 15,000 Hz (± 3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)
Selectivity (DEH-P825/UC, DEX-P99/UC)	70 dB (2ACA)
Three-signal intermodulation (desire signal level) (DEH-P825/UC, DEX-P99/UC)	50 dBf (two undesire signal level: 110 dBf)

MW tuner (DEH-P825R/EW)

Frequency range	531 — 1,602 kHz
Usable sensitivity	18 μ V (25 dB) (S/N: 20 dB)
Selectivity	50 dB (± 9 kHz)

LW tuner (DEH-P825R/EW)

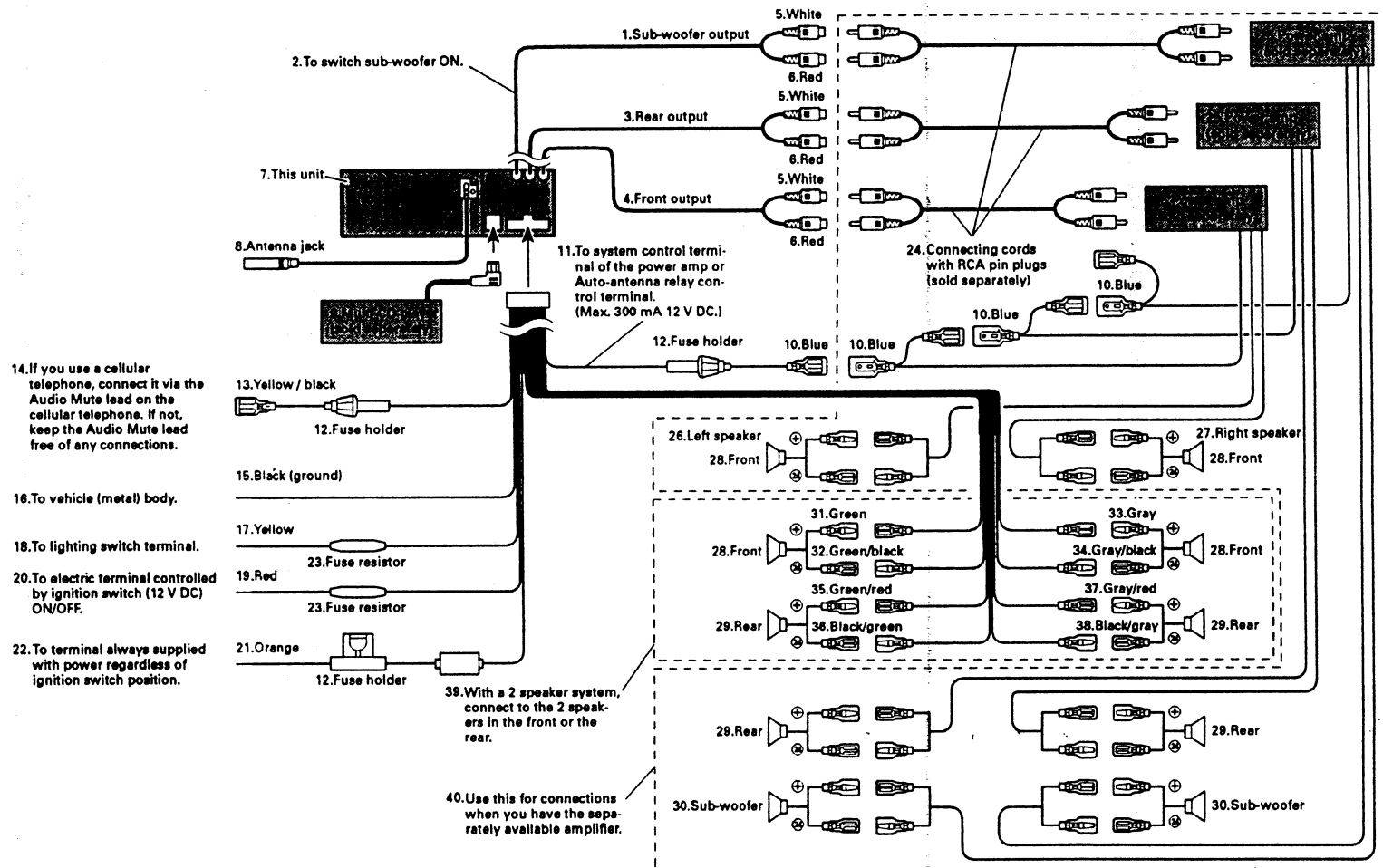
Frequency range	153 — 281 kHz
Usable sensitivity	30 μ V (30 dB) (S/N: 20 dB)
Selectivity	50 dB (± 9 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.

3. OPERATIONS AND CONNECTION

● Connection Diagram

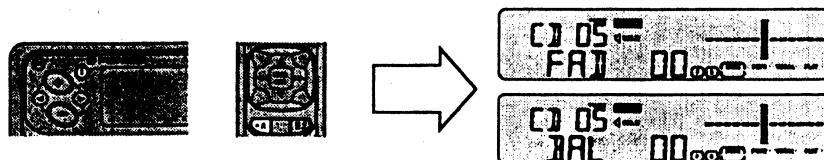


Audio Adjustment

Balance Adjustment

The function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

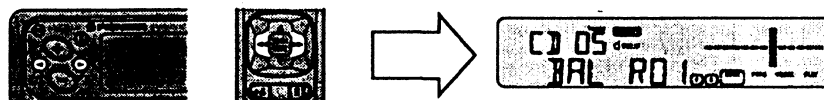
1. Press the Shift button once to select the Fader/Balance mode.
"FAD" or "BAL" appears on the display.
After adjustment use the Shift button to return to the normal display.



2. Press the (+) or (▲) button or the (-) or (▼) button to shift the balance progressively to the front or rear speakers.
"FAD F25" ~ "FAD R25" is displayed as it moves from front to rear.
Note: "FAD 00" is the proper setting when 2 speakers are in use.



3. Press the (◀) or (◀◀) button or the (▶) or (▶▶) button to shift the balance to the left or right speaker, respectively.
"BAL L25" ~ "BAL R25" is displayed as it moves from left to right.



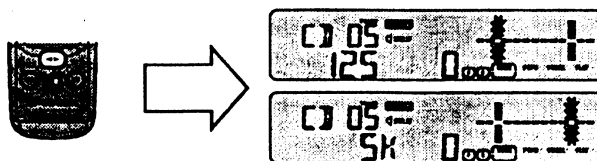
Parametric Bass/Treble Adjustment

This tuner/CD player is equipped with two tone adjustment modes, the Bass Adjustment and Treble Adjustment modes. Each allows you to select one of four frequency levels: 50, 80, 125 or 200 Hz in the Bass Adjustment mode, and 3.2, 5, 8 or 12.5 kHz in the Treble Adjustment mode.

1. Press the Shift button 2 times to select tone adjustment.
The selected frequency level is displayed.
After adjustment use the Shift button to return to the normal display.



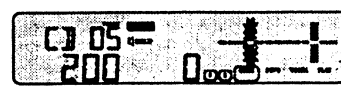
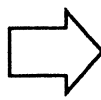
2. Press the Band button to select "Bass Adjustment mode" or "Treble Adjustment mode."



Audio Adjustment

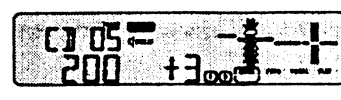
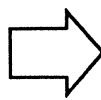
3. Press the (◀) or (◀◀) button or the (▶) or (▶▶) button to decrease or increase frequency.

Stop when the desired frequency is selected.



4. Press the (+) or (▲) button or the (-) or (▼) button, respectively, to increase or decrease the intensity of the bass or treble, whichever is selected.

The display shows "+6"—"-6".

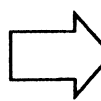


5. Repeat steps 2-4 above for the other Bass or Treble Adjustment mode.

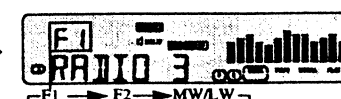
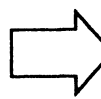
Tuner Operation

Tuner Source and Band

- Push the SO button or the TUNER button to select Tuner.
The program service name or frequency appears on the display.
("Ⓢ") indicator lights when stereo station selected.)



- Use the Band button to select the desired band.
(F1, F2, MW/LW)

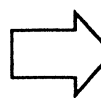


Manual and Seek Tuning

Both Manual (step-by-step) and Seek (automatic) tuning are available.

1. Press button 12 for 2 seconds or longer to switch alternately between the Manual and Seek tuning modes.

The "MANU" indicator lights when Manual tuning is selected and turns OFF when Seek tuning is selected.



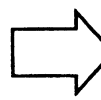
2. Press the (▶) or (▶▶) button to tune the receiver to a higher frequency.

MANU ON (Manual tuning):

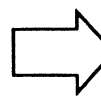
The frequency changes step by step.

MANU OFF (Seek Tuning):

The tuner automatically seeks out and receives broadcasting stations.



- Press the (◀) or (◀◀) button to tune the receiver to a lower frequency.

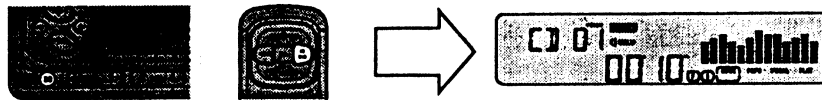


Using the Built-in CD Player

Playing the Built-in CD player

- To play a CD that is already loaded, press the **SO** or **CD/MCD** button with a CD loaded to select the built-in CD player.

The built-in CD player is selected only when a CD is loaded.



Using Multi-CD Players

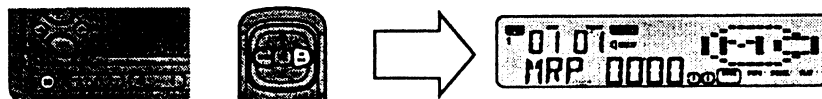
Multi-CD player operation

- Press the **SO** button or the **CD/MCD** button to select the multi-CD player source.

The message "MRP" ("Multi-CD player repeat"), the multi-CD player, disc and track numbers, and the playback time are displayed.

Notes:

- You cannot select the Multi-CD player source if no multi-CD player is installed or no magazine is loaded in an installed multi-CD player.
- The multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the multi-CD player cannot operate properly, an error message such as "ERROR-80" (No disc) is displayed.



4. DISASSEMBLY

● Removing the Case(not shown)

1. Remove the one screw.(Only DEX-P99/UC)
Remove the two screws.(Except for DEX-P99/UC)
2. Insert and turn a flat screwdriver to remove the case.
3. Raise the case to remove.

● Removing the Detach Grille Assy(not shown)

1. Press the detach button.
2. Remove the detach grille assy.

● Removing the CD Mechanism Module(Fig.1)

1. Remove the four screws A.
2. Disconnect the two connectors C.
3. Remove the CD mechanism module.

● Removing the Panel Assy(Fig.1)

1. Remove the two screws B.
2. Disconnect the two connectors D.
3. Press the four stoppers at locations indicated by arrows, and then pull out the panel assy.

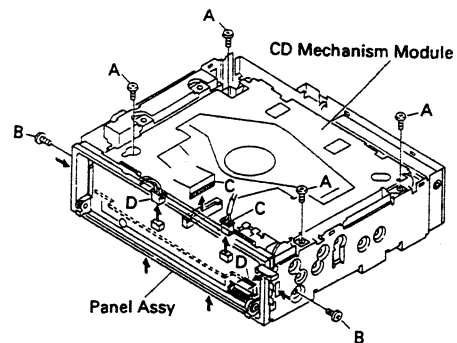


Fig.1

● Removing the Tuner Amp Unit(Fig.2)

1. Remove the two screws A, one screw B, one screw C, the three screws D, the holder and one screw E(only DEX-P99/UC).
2. Unbend the tabs at three locations indicated by arrows until straight.
3. Remove the tuner amp unit.

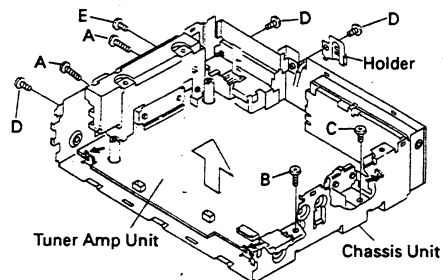


Fig.2

● Removing the Cover Unit(Fig.3)

1. Remove the four screws.
2. Press the three stoppers at locations indicated by arrows, and then pull out the cover unit.

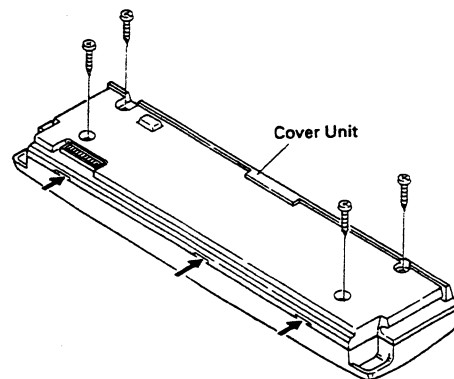


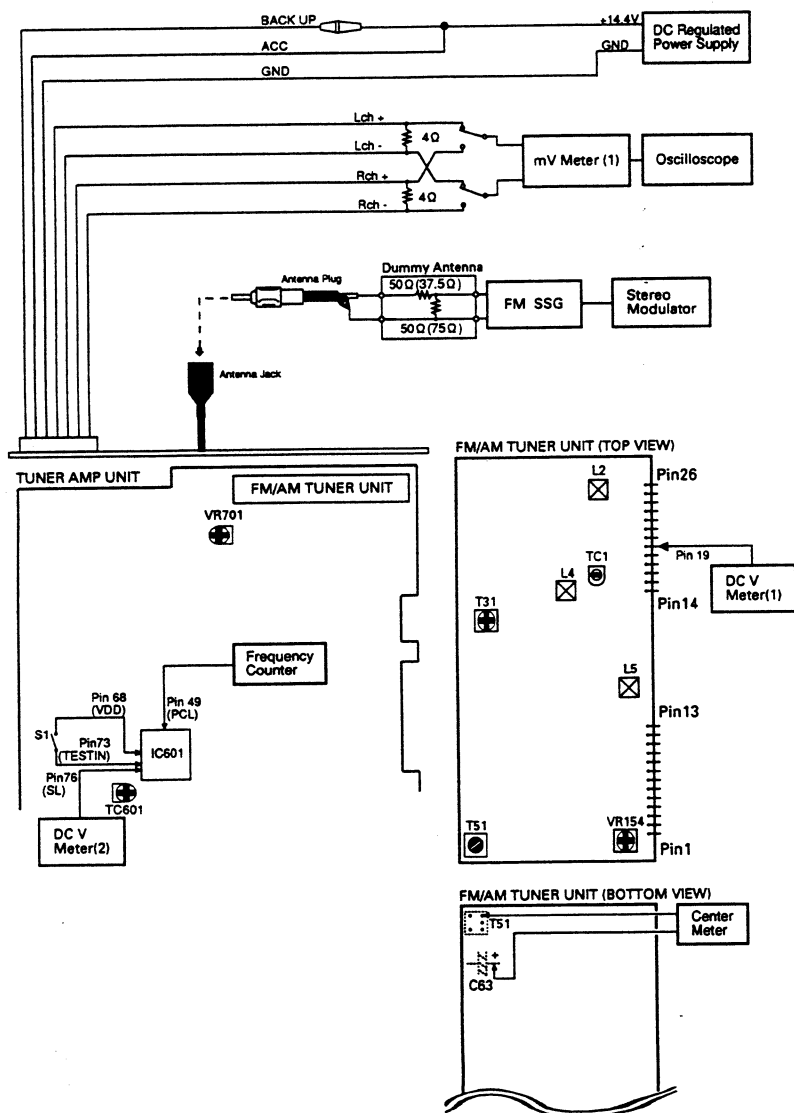
Fig.3

5. ADJUSTMENT

● Connection Diagram

NOTE:

NOTE:
Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.
Z: Output impedance of SSG.



FM ADJUSTMENT(EW, ES MODEL)

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.)

S1:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)

S2:STEREO MOD., 1kHz, L or R=60%(40.50kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed Frequency(MHz)	Adjustment Point	Adjustment Method (Switch Position)
		Frequency(MHz)	Level(dBf)			
TUN Volt	1	*****	*****	108.0	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
Image	1	129.3 M	60—80	107.9	TC1	mV Meter(1) : Minimum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S1	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

FM ADJUSTMENT(UC MODEL)

FM ADJUSTMENT (CO MODEL)						
	No.	FM SSG		Displayed Frequency(MHz)	Adjustment Point	Adjustment Method (Switch Position)
		Frequency(MHz)	Level(dBf)			
TUN Volt	1	*****	*****	107.9	L5	DC V Meter(1) : 6V
IF	1	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	1	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	1	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	1	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	1	98.1 S1	39	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

RDS SL ADJUSTMENT

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
	1	104.0 S2	35	104.0	VR701	DC V Meter(2) : 1.75V±0.05V

CLOCK ADJUSTMENT

No.	Adjustment Point	Adjustment Method
1		S1 : ON
2	TC601	Frequency Counter : 1.048576MHz \pm 2Hz

Fig.4

6. TEST MODE

6.1 TEST MODE

1) Precautions

This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO (approx. 2.5V) instead of GND. If REFO and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.

Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.

Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.

If by accident REFO comes in contact with GND, immediately switch the regulator or power OFF.

Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.

Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.

Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and/or electrical shocks to the system when making adjustment.

Test mode starting procedure

Switch ACC, back-up ON while pressing the 4 and 6 keys together.

Test mode cancellation
Switch ACC, back-up OFF.

Disc detection during loading and eject operations is performed by means of a photo transistor in this unit. Consequently, if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment, the following malfunctions may occur.

*During PLAY, even if the eject button is pressed, the disc will not be ejected and the unit will remain in the PLAY mode.

*The unit will not load a disc.

When the unit malfunctions this way, either re-position the light source, move the unit or cover the photo transistor.

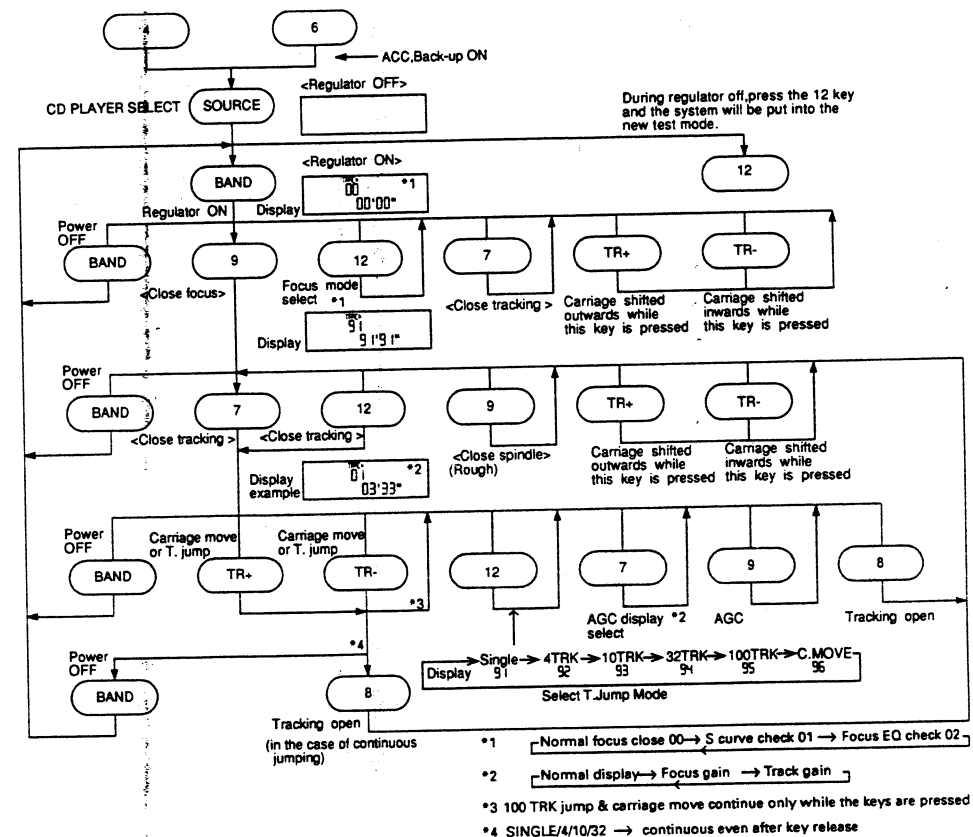
When loading and unloading discs during adjustment procedures, always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.

Turn power off when pressing the button TR+ or the button TR- key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)

SINGLE/4TRK/10TRK/32TRK will continue to operate even after the key is released. Tracking is closed the moment C-MOVE is released.

JUMP MODE resets to SINGLE as soon as power is switched off.

Flow Chart



6.2 ERROR NUMBERS AND NEW TEST MODE

● Error Number Indication

If the CD should fail to operate or if an error has taken place during operation the player will enter into the error mode, and the cause of the error will be numerically indicated. This is aimed at assisting in analysis or repair.

(1) Basic Means of Display

- With ERROR indicated in "MODE" on IP-BUS Display data, an error code is transmitted by the use of MIN and SEC.
- The MIN and SEC data will be identical.
- Examples of Display ERROR-XX

(2) Error Codes

Error Code	Classification	Description	Cause/Detail
10	ELECTRIC	Carriage home failure	Carriage doesn't move to or from the innermost position →Home switch failed and/or carriage immobile
11	ELECTRIC	Focus failure	Focus failed →Defects, disc upside-down, severe vibration
12	ELECTRIC	SETUP failure Subcode failure	Spindle failed to lock or subcode unreadable →Spindle defective, defect, severe vibration
14	ELECTRIC	Mirror failure	Unrecorded CD-R The disc is upside-down, defects, vibration
17	ELECTRIC	Set up failure	AGC protect failed →Defects, disc upside-down, severe vibration
30	ELECTRIC	Search time out	Failed to reach target address →Carriage/tracking defective and/or defects
A0	SYSTEM	Power failure	Power overvoltage or short circuit detected →Switching transistor defective and/or power abnormal

"defects" means scratches, dirt etc on the surface of the disc.

● New Test Mode(aging operation and setup analysis)

The single CD player plays in normal mode. After being set up, it will display FOK (focus), LOCK (spindle), subcode, sound skip, protection against a mechanical error or the like, occurrence of an error, cause and time of an expiry, if any, (and disc number).

During the setup, the CD software operation status (internal RAM and C-point) is displayed.

(1) How to enter NEW TEST Mode

See the test mode flow chart Page 13.

(2) Relations of keys between TEST and NEW TEST Modes

Keys	Test Mode		New Test Mode	
	Regulator OFF	Regulator ON	PLAY in progress	Error Occurred, Protection Activated
BAND	Regulator ON	Regulator OFF	—	Time of occurrence / cause of error select
TR+	—	FWD-KICK	TRACK+ / FF	—
TR-	—	REV-KICK	TRACK- / REV	—
7	—	TRACKING CLOSE	SCAN	—
8	—	TRACKING OPEN	MODE	—
9	—	FOCUS CLOSE	ITP	—
12	To New Test Mode Select	FOCUS MODE	AUTO/MANU	—

Operations, such as EJECT, CD ON/OFF, etc. are performed normally.

(3) Error Cause (Error Number) Code

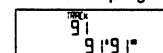
Error Code	Classification	Mode	Description	Cause	Detail
40	ELECTRIC	PLAY	FOK=L 100ms	Put out of focus	Scratch,
41	ELECTRIC	PLAY	LOCK=L 100ms	Spindle unlock	Stain,
42	ELECTRIC	PLAY	Subcode unacceptable 500ms	Failed to read subcode	Vibration,
43	ELECTRIC	PLAY	Sound skipped	Last address memory operated	Servo defect, etc...

(4) Indicating an Operation Status During Setup

Status No.	Description	Protection operation
01	Carriage home mode started	None
02	Carriage moving inwards	10-second time out, Home switch failed
03	Carriage moving outwards	10-second time out, Home switch failed
05	Carriage moving outwards	None
11	Setup started	None
12	Spindle turn/Focus search started	None
13	Waiting for focus closure (XSI=L)	Failure to close focus
10,14	Waiting for focus closure (FOK=H)	Failure to close focus
15, 16, 17	Focus closed, Tracking open	Focus disrupted
18	During focus AGC Subcode waiting	Focus disrupted
19	During tracking AGC	Disrupted focus
20	Waiting for MIRR, LOCK or subcode read Carriage closed, SPINDLE=ADAPTIVE	Focus disrupted, MIRR NG, Failure to lock, Failed to read subcode

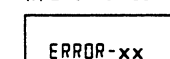
(5) Example of Display

- SET UP in progress

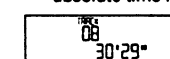


Operation (PLAY, SEARCH, etc.) in progress perfectly identical with that in the normal mode.

- Protection/Error upon occurrence
- (a) Error number indicated



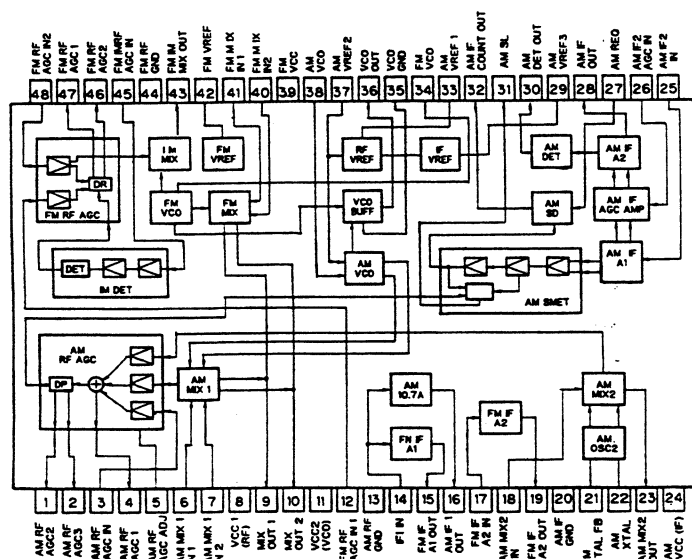
- (b) Track number and absolute time indicated



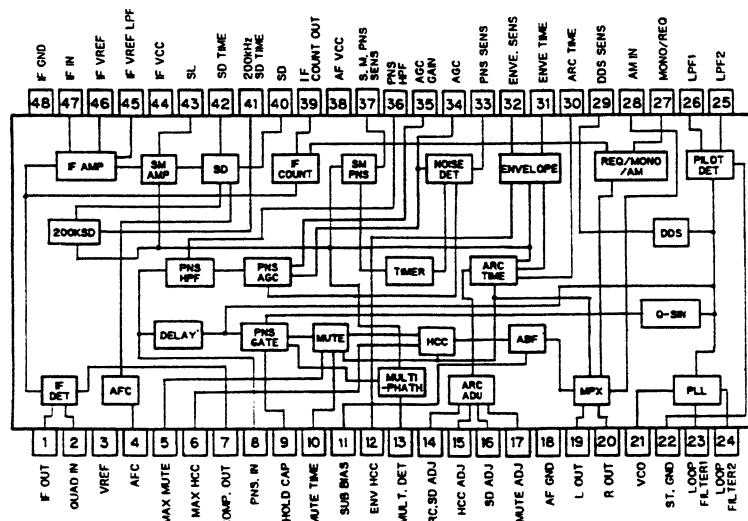
Select the display with the BAND key.

7. IC INFORMATION

PA4023A



PA4024A



● Pin Functions(PD4629A, PD4630A)

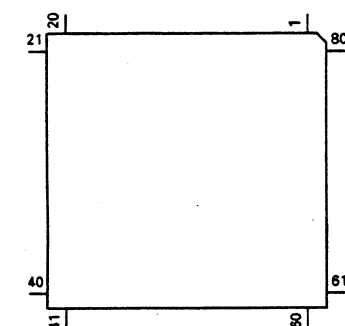
Pin No.	Pin Name	I/O	Format	Function and Operation
1-3	NC			Not used
4	AVSS			GND
5,6	NC			Not used
7	AVREF0			GND
8	KYDT	I		Key data input
9	DPDT	O	C	Display data output
10	SWVDD	O	C	Grille micro computer power supply control output
11	RIDDI	I		RDS/ID LOGIC data input
12	RIDDO	O	C	RDS/ID LOGIC data output
13	RIDCK	O	C	RDS/ID LOGIC clock output
14	BRST	O	C	P-BUS reset output
15	BRXEN	O	C	P-BUS enable output
16	BSRQ	I	C	P-BUS request input
17	BSIO	I/O	C	P-BUS data input/output
18	BSCK	I/O	C	P-BUS clock input/output
19	RIDRST	O	C	RDS/ID LOGIC reset output
20	RIDSEL	O	C	RDS/ID LOGIC select output
21-24	NC			Not used
25,26	SOR0,1	O	C	Source select output
27	ST	I		Stereo input
28	SD	I		FMSD input
29	PDI	I		PLL data input
30	PCK	O	C	PLL clock output
31	PDO	O	C	PLL data output
32	PCE	O	C	PLL chip enable output
33	VSS			GND
34	NC			Not used
35	NC			Not used
36	NC			Not used
37	ALLED	O	N	Detach alarm LED output
38	CDPW	O	N	Power supply select output
39	TMUTE	O	N	Tuner mute output
40	BUSMUTE	O	C	IP-BUS mute output
41	ASENBO	O	C	ACC output for IP-BUS
42	MUTRO	I		Mute request from DSP
43	BMUTIN	I		Mute request from CDS micro computer
44	NC			Not used
45	PEE	O	C	Beep tone output
46	DOORSYS	O	C	Detach alarm system select output
47	SYSPW	O	C	System power output
48	MUTE	O	C	Mute output
49	PCL	O	C	Clock adjustment output
50	LCDPW	O	C	Back light control output
51	DIM	O	C	Dimmer output
52	ILMPW	O	C	Illumination power supply control output
53	CSENS	I		Flap close sense input
54	ISENS	I		Illumination sense input
55	IPPW	I		IP-BUS driver power supply control input
56	TX	O	C	IP-BUS data output
57	RX	I		IP-BUS data input
58	ALON	O	C	Relay output for detach alarm hom
59	DOORSENS	I		Detach alarm door open/close sense input
60	RESET	O	C	Reset output
61	TELIN	I		Telephone mute input
62	BSENS	I		Back up sense input
63	ASENS	I		ACC sense input
64	DSENS	I		Grille detach sense input
65	RIDRDY	I		RDS/ID-LOGIC ready input

Pin No.	Pin Name	I/O	Format	Function and Operation
66,67	NC			Not used
68	VDD			Power supply
69	X2	O	C	Crystal oscillator connection pin
70	X1	I		Crystal oscillator connection pin
71	IC			GND
72	XT2			Not used
73	TESTIN	I		Test program mode input
74	AVDD	I		A/D converter analog power supply
75	NC			Not used
76	SL	I		Signal level input
77-79	SEL0,2	I		Forwarding input
80	NC			Not used

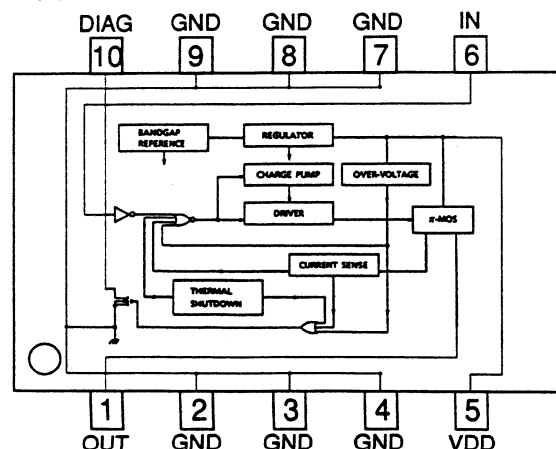
Format	Meaning
C	C MOS
N	N channel open drain

IC's marked by* are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

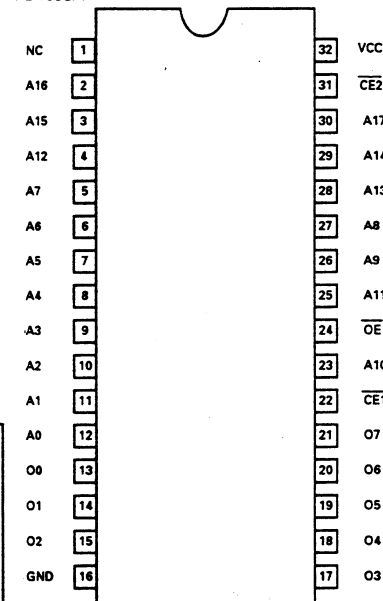
*PD4629A, PD4630A



TPD1018F



PD4633A

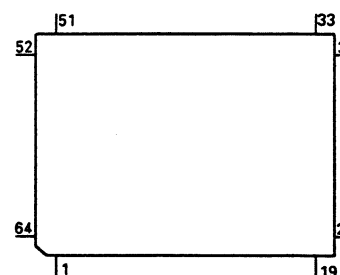


A0-A17: Address input
O0-O7 : Data output
CE1,2 : Chip enable input
OE : Output enable input

● Pin Functions(PD6164A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	PCK	O	N	PLL Communication clock output
2	PDO	O	N	PLL Communication data output
3	PDI	I		PLL Communication data input
4	SL	I		Signal level input
5	NL	I		Noise level input
6	TRGL			Pull down connect terminal
7	SOUND	I		A sound signal for distinguish a same program
8	RMUTE	O	N	RDS mute output
9-11	NC			Not used
12	AVCC			5V power supply
13	AVR			5V power supply
14	AVSS			GND
15	IRSEL	I		Micro computer select input
16	RCK	I		RDS demodulation clock input
17	RDT	I		RDS demodulation data input
18	LDET	I		PLL lock detect input
19	RDSLK	I		RDSLK signal input
20	IRRST	I		Micro computer reset input
21,22	MOD0,1			GND
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O	C	Crystal oscillating element connection pin
25	VSS			GND
26	DRST	O	C	Decoder reset output
27	L/S	O	C	Output for select sensitivity of noise level
28	CURRQ	O	C	PLL-TV-Fix output
29	IRRDY	O	C	Communication ready output
30-49	NC			Not used
50	VSS			GND
51	TEST	I		Test program input
52	IRCK	I		Communication clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55	PCE	O	C	PLL Communication enable output
56	GD	O	C	Tuner unit gate drive control output
57	VCC			5V power supply
58	SD	I		SD signal input
59	MDSNS	I		Modulation detect input
60-64	NC			Not used

*PD6164A

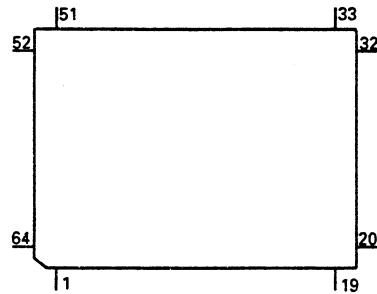


Format	Meaning
C	C MOS
N	N channel open drain

● Pin Functions(PD6165A)

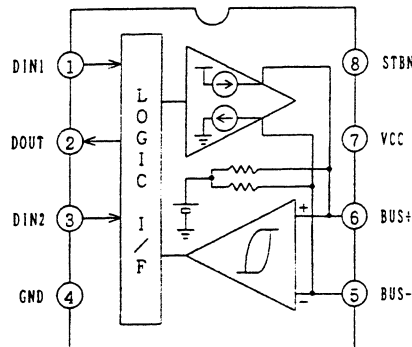
Pin No.	Pin Name	I/O	Format	Function and Operation
1-8	NC			Not used
9-11	ADD13-15	O	N	ROM Address 13-15
12	AVCC			5V power supply
13	AVR			5V power supply
14	AVSS			GND
15	IRSEL	I		Select input
16-19	NC			Not used
20	IRRSY	I		Reset input
21,22	MOD0,1			GND
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O		Crystal oscillating element connection pin
25	VSS			GND
26-28	NC			Not used
29	IRRDY	O	C	Communication ready output
30	OE	O	C	ROM output control
31	ROMEN	O	C	ROM enable
32,33	ADD17,16	O	C	ROM address 17,16
34-41	ADD7-0	O	C	ROM address 7-0
42-49	DT7-0	I		ROM data input 7-0
50	VSS			GND
51	TEST	I		Test program input
52	IRSCK	I		Communication clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55,56	NC			Not used
57	VCC			5V power supply
58,59	NC			Not used
60-64	ADD8-12	O	N	ROM address 8-12

*PD6165A



Format	Meaning
C	C MOS
N	N channel open drain

CA0008AM



● Pin Functions(PD4623A)

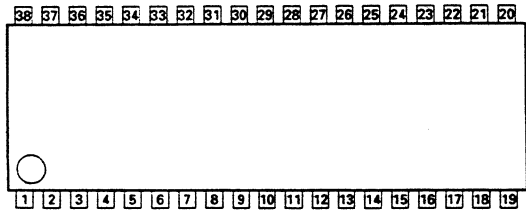
Pin No.	Pin Name	I/O	Format	Function and Operation
1	NC			Not used
2	XRST	O	C	CD LSI reset output
3,4	NC			Not used
5	CBNK0	O	C	DSP bank for compressor set up output 0
6	NC			Not used
7	HOME	I		Carriage home position detector input
8	CLAMP	I		Disc clamp sense input
9	VSS			GND
10	NC			Not used
11	CDEJET	O	C	Loading motor eject control output
12	LOAD	O	C	Loading motor load control output
13	CONT	O	C	Servo driver power supply control output
14	NC			Not used
15	CDMUTE	O	C	CD mute control output
16	DEEM	O	C	Emphasis control output
17	ADENA	O	C	A/D reference voltage control output
18-23	NC			Not used
24	VSS			GND
25	NC			Not used
26	BMUTE	O	C	Bus mute output
27-30	NC			Not used
31	BRXEN	I/O	C	P-BUS reception enable input/output
32	BSRO	O	C	P-BUS serial pole request output
33	VDCONT	O	C	VD power supply control output
34	CD5VON	O	C	CD +5V power supply control output
35	RESET	I		Reset input
36	TXARI			+5V
37	CSSENS	I		Flap close sense input
38	BRST	I		P-BUS reset input
39	CMPARI	I		VSS
40	VDD			+5V
41	X2	O		Crystal oscillator connection pin
42	X1	I		Crystal oscillator connection pin
43	IC			GND
44	NC			Not used
45	TESTIN	I		Test program start input
46	AVSS			A/D GND
47	TEMP	I		Temperature detector input
48	VDSSENS	I		VD power supply detector input
49	EJTD	I		Disc eject position sense input
50	DINC	I		Disc insert sense input
51	NC			Not used
52	FOK	I		Focus OK signal input
53	MIRR	I		Mirror detector input
54	LOCK	I		Spindle lock detector input
55	AVDD			A/D analog power supply
56	AVREF	I		A/D converter reference voltage input
57	XSI	I		CD LSI serial data input
58	XSO	O	C	CD LSI serial data output
59	XSCK	O	C	CD LSI serial clock output
60	XSTB	O	C	CD LSI strobe output
61	XA0	O	C	Output for control signal distinguishing CD LSI data
62	VSS			GND
63	BDATA	I/O	C	P-BUS serial data input/output
64	BSCK	I/O	C	P-BUS serial clock input/output

Format	Meaning
C	C MOS

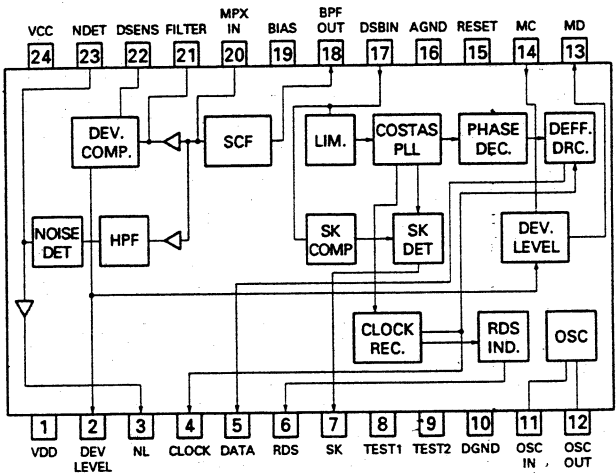
● Pin Functions (UPC2572GS)

Pin No.	Pin Name	I/O	Function and Operation
1	EFM-IN	I	EFM comparator input
2	AGC-OUT	O	AGC amplifier output
3	C. AGC	I	Connects AGC peak detection condenser
4	RF-IN	I	RF signal DC component cut input
5	RF-OUT	O	RF amplifier output
6	RF-	I	RF amplifier inverted input
7	C1, 3T	I	Connects RF3T component detection condenser
8	C2, 3T	I	Connects RF3T component detection condenser
9	Vcc		Power supply
10	A	I	A signal input
11	C	I	C signal input
12	B	I	B signal input
13	D	I	D signal input
14	F	I	F signal input
15	E	I	E signal input
16	PD	I	APC amplifier input
17	LD	O	APC amplifier output
18	LDON	I	Laser diode ON/OFF input
19	VREF-OUT	O	Reference voltage output
20	VREF-IN	I	Reference voltage input
21	DET-OUT	O	Vibration detection circuit output
22	DET-IN	I	Vibration detection circuit input
23	TE-OUT2	O	Tracking error amplifier output (fourfold gain)
24	TE-OUT1	O	Tracking error amplifier output (singlefold gain)
25	TE-	I	Tracking error amplifier inverted input
26	GND		GND
27	FE-	I	Focus error amplifier inverted input
28	FE-OUT	O	Focus error amplifier output
29	C.FE	I	Focus error signal DC component cut input
30	3T-OUT	O	RF3T component output
31	MIRR	O	MIRR signal output
32	RFOK	O	RFOK signal output
33	DEFECT	O	DEFECT signal output
34	C. DEF	I	Connects DEFECT signal detection condenser
35	EFM-OUT	O	EFM comparator output
36	ASY	I	EFM comparator level input
37	TE-BAL	I	Tracking balance control
38	FE-BAL	I	Focus balance control

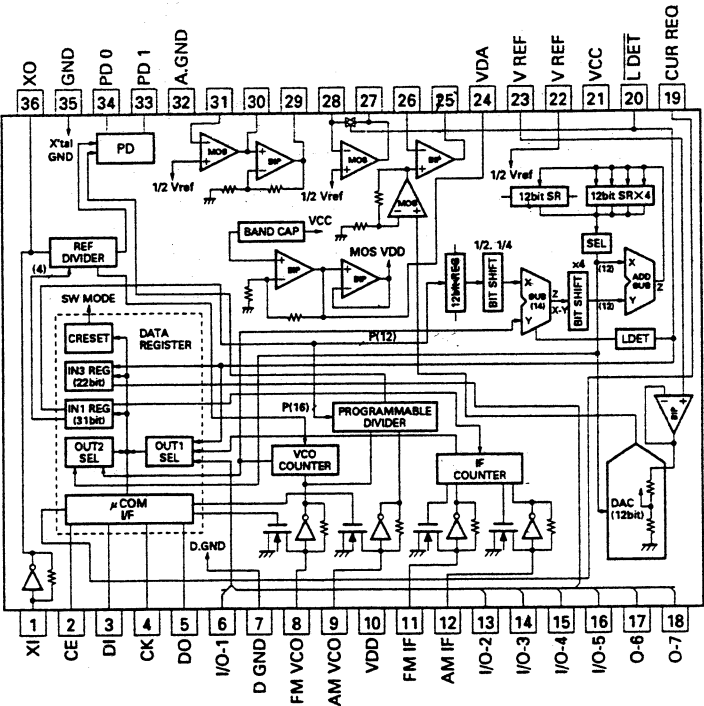
UPC2572GS



*PMW001A



*PM2004A

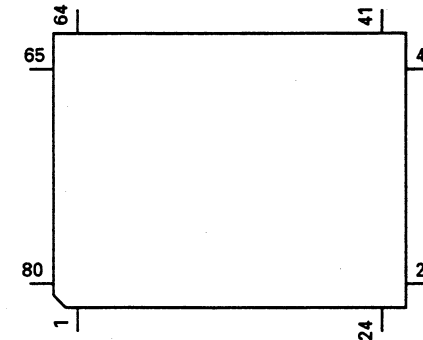


● Pin Functions (UPD63702GF)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Supplies current of positive voltage to the logic circuits
2	RST	I	System reset input pin
3	AO	I	Microcomputer interface AO="L": STB active and set to address register AO="H": STB active and set to parameter
4	STB	I	Signal to latch serial data within the LSI
5	SCK	I	Clock input pin to input and output serial data
6	SO	O	Outputs serial data and status signal
7	SI	I	Serial data input pin
8	D.GND		Logic circuit GND
9	X.GND		Crystal oscillation circuit GND
10	XTAL	I	Crystal oscillator connection pin
11	XTAL	O	Crystal oscillator connection pin
12	X.VDD		Supplies current of positive voltage to the crystal oscillation circuit
13	DA.VDD		Supplies current of positive voltage to the D/A converter
14	R+	O	Right channel analog audio data output pin
15	R-	O	Right channel analog audio data output pin
16,17	DA.GND		D/A converter GND
18	L-	O	Left channel analog audio data output pin
19	L+	O	Left channel analog audio data output pin
20	DA.VDD		Supplies current of positive voltage to the D/A converter
21	D.VDD		Supplies current of positive voltage to logic circuit
22	FLAG	O	Flag output pin to indicate that audio data currently being output consists of noncorrectable data
23	WDCK	O	Pin to output double the frequency of LRCK
24	C16M	O	Pin to output the clock
25	EMPH	O	Output pin for the pre-emphasis data in the sub-Q code
26	DIN	I	Input pin for serial audio data
27	DOUT	O	Output pin for the serial audio data
28	SCKO	O	Output pin for the clock for the serial audio data
29	LRCK	O	Signals to distinguish the right and left channels of the audio data output from DOUT. Frequency is 44.1kHz at 50% duty at normal regeneration
30	TX	O	Output pin for the digital audio interface data
31	CTLV	I	Oscillation control pin for high-frequency clock generation VCO used for the digital PLL upon regeneration at fast speed of 2- or 4-fold
32	POUT	O	Output point for phase comparison
33	D.GND		GND for the logic circuit
34	VCO	I	Input pin for the inverter
35	VCO	O	Output pin for the inverter
36	D.VDD		Supplies current of positive voltage to the logic circuit
37	PLCK	O	Pin for monitoring the bit clock
38	LOCK	O	Indicates "H" when the synchronized pattern detection signal matches the frame counter output at the EFM recovery modulation, and "L" when they don't match
39	WFCK	O	Minute-cycle signal for the bit clock, the signal indicates the cycle of 1 frame (approx. 7.35kHz)
40	RFCK	O	Minute-cycle signal for the clock, the signal indicates cycle of 1 frame (approx. 7.35kHz)
41	D.GND		GND for the logic circuit
42,43	TEST0,1	I	Test pins
44,45	TM2, TM4	I	Pins for controlling regeneration at fast speed of 2- or 4-fold
46-49	T4-T7	I	Test pins
50,51	C1D1, C1D2	O	Output pin for indicating the C1 error correction results
52-54	C2D1-C2D3	O	Output pin for indicating the C2 error correction results
55	D.VDD		Supplies current of positive voltage to the logic circuit
56	SFSY	O	Outputs 1 word of the subcode. Generally, 1 cycle is approx 136 micro seconds
57	SBSY	O	The signal indicates the beginning of the subcode block. The SFSY signal is output at high level every 98 times

Pin No.	Pin Name	I/O	Function and Operation
58	SBSO	O	Output pin for the subcode data
59	SBCK	I	Input pin for the clock signal for read-out of the subcode data
60	A.GND		GND for the analog circuit
61	MD	O	Output pin for the spindle drive
62	SD	O	Output pin for the sled drive
63	TD	O	Output pin for the tracking drive
64	FD	O	Output pin for the focus drive
65	FBAL	O	Output pin for the focus balance control
66	TBAL	O	Output pin for the tracking balance control
67	A.VDD		Supplies current of positive voltage to the analog circuit
68	TBC	I	Switches coefficient banks for the tracking filter
69	EFM	I	Input pin for the EFM signal
70	HOLD	I	Input pin for the hold control signal
71	RFOK	I	Input pin for the RFOK signal
72	MIRR	I	Input pin for the MIRR signal
73	A.GND		GND for the analog circuit
74,75	VR2,1	I	The signal input through these pins is digitized to 8-bit by the A/D converter, which by operation of the assigned register, can be read into the microcomputer
76	FE	I	Inputs a focus-error signal from the RF amplifier
77	TE	I	Inputs a tracking-error signal from the RF amplifier
78	TEC	I	Input pin for the tracking comparator
79	REFOUT	O	Output point for midpoint potential for the A/D converter for the LSI portion
80	A.VDD		Supplies current of accurate voltage to the analog circuit

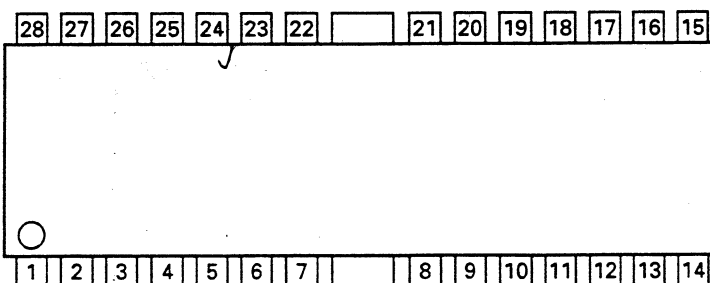
*UPD63702GF



● Pin Functions (XLA6997FP)

Pin Functions (XLA635/FF)			
Pin No.	Pin Name	I/O	Function and Operation
1	OUT1-A	O	CH1 driver output
2	OUT1-B	O	CH1 driver output
3	IN1	I	CH1 input
4	IN1'	I	CH1 gain adjustment input
5	REG-B		PowTr base connection pin for regulator
6	REG OUT	O	Regulator output PowTr collector connection pin
7	REG GND		Regulator GND/Common circuit GND
8	BIAS	I	BIAS input
9	MUTE		Mute control pin
10	REG SW		Regulator switch pin
11	TEMP MON		Humidity monitor pin
12	IN2	I	CH2 input
13	OUT2-B	O	CH2 driver output
14	OUT2-A	O	CH2 driver output
15	GND		GND
16	OUT3-A	O	CH3 driver output
17	OUT3-B	O	CH3 driver output
18	IN3''		CH3 gain adjustment pin
19	IN3'		CH3 gain adjustment pin
20	IN3	I	CH3 input
21,22	VCC		VCC
23	IN4	I	CH4 input
24	IN4'		CH4 gain adjustment pin
25	IN4''		CH4 gain adjustment pin
26	OUT4-B	O	CH4 driver output
27	OUT4-A	O	CH4 driver output
28	GND		GND

XLA6997FP



8. ELECTRICAL PARTS LIST

NOTES:

- Parts whose parts numbers are omitted are subject to being not supplied.
● The part numbers shown below indicate chip components.

Chip Resistor

RS1/050000J,RS1/00S000J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
<div>Key Board Unit</div> <div>Consists of</div> <div>Key Board P.C.Board</div> <div>Switch P.C.Board</div>		CAPACITORS	
Unit Number : CWM4471		C 4901 4902	CSZSR100M6R3
Unit Name : Key Board Unit		C 4914 4921	CKSOYB104K16
		C 4915 4916 4917 4919 4920	CKSOYB473K16
		C 4922	CKSOYB273K25
MISCELLANEOUS		Unit Number : CWM4531	
		Unit Name : Inverter Unit	
		MISCELLANEOUS	
IC 901	PD5342A	Q 640	2SD1864
IC 902	HD61602RH		CTT1038
IC 905	RS-30		
Q 903	2SC2712		
D 4901 4902	MA153		
		RESISTORS	
D 4903	Chip LED	R 609	RS1/10S512J
D 4904 4905 4906 4907	Chip LED	R 621	RS1/10S241J
D 4908 4909 4910 4911	Chip LED		
D 4912 4913	Chip LED		
D 4914 4915 4916 4917	Chip LED		
		CAPACITORS	
D 4918 4919 4920 4921	Chip LED	C 629	CKSOYB473K16
D 4922 4923	Chip LED	C 630	CEA100M16LL
D 4924 4927 4928 4929	Chip LED		
D 4926		Unit Number : CWX1923	
D 4930 4931 4932 4933	Chip LED	Unit Name : Tuner Amp Unit	
		MISCELLANEOUS	
D 4934 4936	Chip LED	IC 451	TA2050S
D 4937	Chip LED	IC 452	CA0080AM
L 901	Inductor	IC 501	PMW2004A
L 902 903	Inductor	IC 551	PAL003A
X 901	Ceramic Resonator 4.9152MHz	IC 601	PD4630A
S 901	Switch	IC 602 853	S-80734ANDV1
S 902 903 904 905	Switch	IC 651	PD4623A
S 906 907 912 913	Switch	IC 701	PD6164A
S 908 909 910 911	Switch	IC 702	SC14S069F
S 914 915 916 917	Switch	IC 703	PMW001A
S 918 919 920 921	Switch	IC 851	XRA3131FS
S 922 923 924	Switch	IC 852	CWV1062
S 925	Switch(Close)	IC 921	TPD1018F
		IC 971	PA2024A
LCD901	LCD	IC 991	NJM78M05A
RESISTORS		Q 452 672 679 941	2SA1162
R 4901 4902	RS1/2S222J	Q 453 454 601	DTC124EK
R 4904	RS1/16S121J	Q 455	DTA114TK
R 4905	RS1/8S151J	Q 456 881 882 883	IMH3A
R 4906 4907 4908 4909 4910 4911 4912 4913 4914 4915	RS1/16S470J	Q 502	2SC2712
R 4920 4923 4955	RS1/16S473J		
		Q 503	DTC124EK
R 4921 4922 4924 4925 4926 4929 4930 4931	RS1/16S472J	Q 551	IMH1A
R 4933 4957	RS1/16S102J	Q 651	DTA124EK
R 4934	RA3C102J	Q 671 678	2SC3295
R 4935 4936	RS1/16S102J	Q 673	IMX1
R 4938 4942	RA4C102J		
		Q 675 911	2SD1760F5
R 4939	RS1/16S103J	Q 676 991	2SB1238
R 4946 4947 4948 4949 4950 4951 4952 4959 4960	RS1/4S151J	Q 677	2SC2712
R 4958	RS1/16S2R2J	Q 701	DTC143TK
R 4961 4962	RS1/2S241J	Q 834 835	2SD1757K

31

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
RESISTORS		RESISTORS		RESISTORS		CAPACITORS	
R 1	RS1/16S0R0J	C 16	CCSRCH080D50	L 201	Ferri-Inductor	LAU47K	CCSQCH060D50
R 4	RS1/16S154J	C 21	CEA100M16LL	L 202	Ferri-Inductor	LAU330K	CCSRCH020C50
R 5	RS1/16S391J	C 22	CCSRTH090D50	L 203	Inductor	CTF1287	CCSRCH820J50
R 6 10 202	RS1/16S223J	C 23	CCSRTH120J50	L 208	Inductor	LAU121K	CCSRCH820J50
R 7 243 247	RS1/16S123J	C 24	CCSRCH471J50	L 231	Inductor	LAU3R3J	CCSRCH820J50
R 8 17	RS1/16S332J	C 32	CKSQYB472K50	T 31	Coil	CTE1116	CKSQYB103K25
R 9	RS1/16S473J	C 33	CCSRCH050C50	T 51	Coil	CTC1136	CKSQYB104K16
R 11	RS1/16S124J	C 36	CCSRRH201J50	CF 51 52 53	Ceramic Filter	CTF1290	CCSRCH050C50
R 13	RS1/16S563J	C 51	CKSQYB223K25	CF 232	Ceramic Filter	CTF1348	CEA010M50LL
R 15	RS1/16S271J	C 54	CCSRCH470J50	X 151	Ceramic Resonator 920.5kHz	CSS1365	CKSQYB222K50
R 16	RS1/16S104J	C 55	CKSQYB223K25	X 231	Crystal Resonator 10.26MHz	CSS1111	CCSRCH220J50
R 18	RS1/16S332J	C 57	CKSQYB472K50	VR 154	Semi-fixed 68kΩ(B)	CCP1211	CCSRCH060D50
R 31	RS1/16S470J	C 58 234	CEA330M10LL	RESISTORS		C 15	CCSRCH080D50
R 32 215	RS1/16S822J	C 61	CCSRCH270J50	R 1 2	RS1/16S225J	C 16	CCSRCH080D50
R 33	RS1/16S822J	C 63	CEAR15M50LL	R 4	RS1/16S154J	C 21	CEA100M16LL
R 34 35	RS1/16S331J	C 101	CEA100M10NPLL	R 5	RS1/16S391J	C 22	CCSRTH090D50
R 51	RS1/16S271J	C 102	CKSQYB182K50	R 6 10 202	RS1/16S223J	C 23	CCSRTH120J50
R 52	RS1/16S560J	C 103	CKSQYB682K25	R 7 247	RS1/16S123J	C 24	CCSRCH471J50
R 55	RS1/16S102J	C 104	CEA2R2M50LL	R 8 17	RS1/16S332J	C 26	CCSRCH101J50
R 56	RS1/16S823J	C 106	CCSRCH151J50	R 9	RS1/16S473J	C 32	CKSQYB472K50
R 61	RS1/16S392J	C 151	CKSQYB472K50	R 11	RS1/16S124J	C 33	CCSRCH050C50
R 62 152	RS1/16S393J	C 153 157	CEA3R3M50LL	R 13	RS1/16S563J	C 36	CCSRRH201J50
R 101	RS1/16S272J	C 154	CKSQYB104K16	R 15	RS1/16S271J	C 51	CKSQYB223K25
R 102	RS1/16S682J	C 158	CKSQYB474K16	R 16	RS1/16S104J	C 54	CCSRCH470J50
R 103	RS1/16S333J	C 159	CEA220M6R3LL	R 18	RS1/16S332J	C 55	CKSQYB223K25
R 104	RS1/16S334J	C 161 209	CKSQYB104K16	R 31	RS1/16S470J	C 57	CKSQYB472K50
R 105	RS1/16S683J	C 162	CEA3R3M50LL	R 32 215	RS1/16S822J	C 58 234	CEA330M10LL
R 107	RS1/16S222J	C 163	CKSQYB102K50	R 33	RS1/16S822J	C 60	CKSQYB102K50
R 151	RS1/16S222J	C 170 202	CCSRCH100D50	R 34 35	RS1/16S331J	C 61	CKSQYB102K50
R 154 239	RS1/16S104J	C 201 250	CCSRCH471J50	R 51	RS1/16S271J	C 63	CEA22M50LL
R 155	RS1/16S273J	C 203 235	CKSQYB332K50	R 52	RS1/16S560J	C 101	CEA100M10NPLL
R 156	RS1/16S243J	C 204 205 236 244	CKSQYB473K16	R 55	RS1/16S102J	C 102	CKSQYB182K50
R 157	RS1/16S203J	C 206 233	CKSQYB104K16	R 56	RS1/16S823J	C 103	CKSQYB682K25
R 160	RS1/16S222J	C 207	CCSRCH560J50	R 61	RS1/16S392J	C 104	CEA2R2M50LL
R 161	RS1/16S563J	C 211	CCSRCH101J50	R 62	RS1/16S273J	C 106	CCSRCH151J50
R 162	RS1/16S105J	C 212	CEA470M6R3LL	R 101	RS1/16S272J	C 151	CKSQYB472K50
R 163	RS1/16S222J	C 216	CCSRCH101J50	R 102	RS1/16S682J	C 153 157	CEA3R3M50LL
R 203	RS1/16S225J	C 217	CEA1R5M50LL	R 103	RS1/16S333J	C 154	CKSQYB104K16
R 204	RS1/16S103J	C 219	CCSRCH471J50	R 104	RS1/16S334J	C 158	CKSQYB474K16
R 206	RS1/16S220J	C 220 230	CKSQYB103K25	R 105	RS1/16S883J	C 159	CEA220M6R3LL
R 207	RS1/16S101J	C 231	CCSRCH330J50	R 152	RS1/16S222J	C 162 209	CKSQYB104K16
R 208 217	RS1/16S102J	C 232	CCSRCH150J50	R 155	RS1/16S273J	C 163	CKSQYB102K50
R 209	RS1/16S471J	C 233	CCSRCH180J50	R 156	RS1/16S243J	C 170 202	CCSRCH100D50
R 214	RS1/16S822J	C 239	CKSQYB472K50	R 157	RS1/16S203J	C 201 250	CCSRCH471J50
R 231	RS1/16S272J	C 240 242	CEAR47M50LL	R 160	RS1/16S222J	C 203 235	CKSQYB332K50
R 232	RS1/16S473J	C 243	CEAR33M50LL	R 161	RS1/16S563J	C 204 205 236 244	CKSQYB473K16
R 237	RS1/16S103J	C 245	CKSQYB123K25	R 162	RS1/16S105J	C 206 233	CKSQYB104K16
R 238	RS1/16S104J	C 246	CKSQYB473K16	R 163	RS1/16S223J	C 207	CCSRCH560J50
R 240	RS1/16S332J	Unit Number : CWE1417(DEH-P825/UC,P823/ES,DEX-P99/UC)		R 204	RS1/16S103J	C 211	CCSRCH101J50
R 241	RS1/16S202J	Unit Name : FM/AM Tuner Unit		R 206	RS1/16S220J	C 212	CEA470M6R3LL
R 244	RS1/16S103J	MISCELLANEOUS		R 207	RS1/16S101J	C 216	CCSRCH101J50
CAPACITORS		IC 1	PA4022A	R 208 217	RS1/16S102J	C 217	CEA1R5M50LL
C 1	CCSQCH060D50	IC 2	PA4024A	R 209	RS1/16S471J	C 219	CCSRCH471J50
C 2	CCSRCH020C50	Q 1 31 202	2SC2412KLN	R 214	RS1/16S822J	C 220 230	CKSQYB103K25
C 4	CCSRCH820J50	Q 2 203	DTC124EU	R 231	RS1/16S272J	C 232	CCSRCH330J50
C 6	CCSRCH820J50	Q 3	3SK263	R 232	RS1/16S473J	C 237	CCSRCH180J50
C 8 18 25 31 52 59 62 105 107 213	CKSQYB103K25	Q 201	2SK932	R 237	RS1/16S103J	C 239	CKSQYB472K50
C 9 34 56 152 160 241	CKSQYB104K16	D 1 2	RD39JS	R 238	RS1/16S104J	C 240 242	CEAR47M50LL
C 10	CCSRCH050C50	D 4	1SV251	R 239	RS1/16S104J	C 243	CEAR33M50LL
C 11	CEA010M50LL	D 5 7 8	KV1410	R 240	RS1/16S332J	C 245	CKSQYB183K25
C 12 13 17 19 20	CKSQYB222K50	D 6 201 202	MA157	R 241	RS1/16S202J		
C 14	CCSRCH220J50	D 231	SVC253	R 243	RS1/16S183J		
		L 2 4	CTC1108	R 244	RS1/16S472J		
		L 3	LCTB2R2K2125				
		L 5	CTC1107				
		L 51	LAU150K				
		Inductor					
		Coil					
		Ferri-Inductor					

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
Unit Number : CWX1964		C 203	CKSQYB104K16
Unit Name : Control Unit		C 303	CEV470M16
MISCELLANEOUS		C 305 306	CKSRYP103K25
IC 101	UPC2572GS	C 501	CCSRCH221J50
IC 201	UPD63702GF	C 502	CKSRYP471K50
IC 301	XLA6997FP		
IC 302	XRA6295FP	C 602	CKSQYB104K16
IC 701	PQ05TZ51	C 701	CCH1233
Q 101	2SD1664	C 901 903	CCSRCH471J50
Q 102	UMD2N	C 902	CCSRCH271J50
D 701 702	1SR154-400	C 904	CCSRCH101J50
D 801 802	CL200IRX		
S 801 802	CSN1028	Unit Number :	
		Unit Name : Detector P.C.Board	
RESISTORS		Q 1 2	Photo Transistor
R 101	RS1/8S100J	Unit Number : CWX1922(DEX-P99/UC)	CPT-230S-X
R 102	RS1/8S120J	Unit Name : High Output Unit	
R 103	RS1/16S102J	MISCELLANEOUS	
R 104	RS1/16S822J	IC 4151 4251 4351	NJM4558MD
R 105	RS1/16S682J	Q 4151	IMH3A
		Q 4251 4351	IMH3A
R 106	RS1/16S183J	D 4151 4251 4351	MA151WA
R 107	RS1/16S822J		CWM4538
R 108	RS1/16S333J	DC-DC Converter Unit	
R 109	RS1/16S683J		
R 110	RS1/16S134J	RESISTORS	
		R 4051	RD1/2PS271JL
R 111	RS1/16S273J	R 4151 4351 4352	RS1/10S473J
R 112	RS1/16S222J	R 4152	RS1/16S473J
R 113 114	RS1/16S103J	R 4153 4154 4156 4253 4255 4353 4354 4355 4356	RS1/16S103J
R 115	RS1/16S102J	R 4155 4254 4256	RS1/10S103J
R 116 117	RS1/16S163J		
R 201	RS1/16S104J	R 4157 4257 4258 4357 4358	RS1/10S821J
R 202	RS1/16S473J	R 4158	RS1/16S821J
R 304	RS1/16S0R0J	R 4159 4160 4259 4260 4359 4360	RS1/10S223J
R 502	RS1/16S222J	R 4251 4252	RS1/16S473J
R 503	RS1/16S0R0J	CAPACITORS	
		C 4053	CSZSC100M16
R 504	RS1/16S102J	C 4151 4152 4351 4352	CEA2R2M50LL
R 505	RS1/16S102J	C 4153 4254	CEA100M16LL
R 507	RA4C102J	C 4154 4253 4353 4354	CEA100M16LS2
R 508	RA4C681J	C 4155 4156	CKSYB105K16
R 510	RS1/10S0R0J		
		C 4157 4158	CKSQYB823K25
R 801 802	RS1/8S751J	C 4251 4252	CEA2R2M50LS2
CAPACITORS		C 4255 4256 4355 4356	CCSQCH221J50
C 101 601 703	CEV101M6R3	C 4257 4357 4358	CCSQCH820J50
C 102	CKSQYB104K16	C 4258	CCSQCH820J50
C 103	CEV470M6R3	Unit Number : CWM4538(DEX-P99/UC)	
C 104	CKSYB334K16	Unit Name : DC-DC Converter Unit	
C 105	CCSRCH330J50	MISCELLANEOUS	
C 106 304	CKSRYP103K25	IC 4001	TL1451ANS
C 107	CEVAR7M35	Q 4001	2SA1797
C 108	CKSQYB273K50	Q 4002	2SC2812
C 109	CCSRCH101J50	Q 4003	2SA1179
C 110 202	CKSQYB104K16	Q 4004	2SA1576
C 111	CKSRYP332K50		
C 112	CKSQYB473K16	Q 4005	DTC124EU
C 113	CKSRYP103K25	D 4001	SCB02-06
C 114	CKSRYP391K50	L 4001 4002 4003	CTH1164
C 115	CCSRCH121J50		
		RESISTORS	
C 116	CKSRYP682K25	R 4001	RS1/10S122J
C 117	CKSRYP333K16	R 4002	RS1/10S473J
C 118 201	CKSYB334K16	R 4003	RS1/4S681J
C 119	CKSYB334K16	R 4004	RS1/10S101J
C 120 121 702		R 4005	RN1/10SE333D
C 122 124	CKSQYB104K16		
C 123	CKSRYP472K50	R 4006	RN1/10SE123D
C 125	CCSRCH060D50	R 4007	RS1/10S104J
C 126	CKSRYP153K25	R 4008	RN1/10SE622D
C 127	CCSRCH102J25	R 4009 4010	RS1/10S223J
		R 4011	RS1/10S101J

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
R 4012 4013	RN1/10SE103D	C 4013	CKSQYB104K25
R 4016	RS1/10S754J		
R 4017	RN1/10SE912D	MISCELLANEOUS PARTS LIST	
R 4018	RN1/10SE153D	M 1	PU Unit
R 4019	RN1/10SE303D	M 2	Motor Unit(Spindle)
		M 3	CRG Motor Unit(Carriage)
CAPACITORS			Load Motor Unit>Loading)
C 4001 4003 4006 4008	33uF/25V		
C 4002 4005 4009 4010 4014			
C 4004	CCH1249		
C 4011	CKSQYB102K50		
C 4012	CCSQCH101J50		
	CKSQYF105Z16		
	CCSQCH221J50		

● The DEH-P825/UC, DEH-P823/ES, and DEX-P99/UC Parts Lists enumerate the parts which differ from those enumerated in the DEH-P825/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-P825R/EW Parts List is given on page 29.

Tuner Amp Unit(1/3)

Circuit Symbol & No.	DEH-P825R/EW	DEH-P825/UC	DEH-P823/ES	DEX-P99/UC
IC551	PAL003A	PAL003A	PAL003A	*****
IC601	PD4630A	PD4629A	PD4630A	PD4629A
IC701	PD6164A	PD6165A	*****	PD6165A
IC702	SC14SU69F	*****	*****	*****
IC703	PMW001A	*****	*****	*****
IC704	*****	PD4633A	*****	PD4633A
IC931	*****	*****	*****	TPD1018F
Q551	IMH1A	IMH1A	IMH1A	*****
Q701	DTC143TK	*****	*****	*****
Q834,835	2SD1757K	*****	*****	*****
Q881-883	IMH3A	IMH3A	IMH3A	*****
Q941	2SA1162	*****	2SA1162	*****
Q961	*****	*****	*****	IMD2A
Q962	*****	*****	*****	2SC2712
D701	MA3047M	*****	*****	*****
D702,831	MA151K	*****	*****	*****
D881-883	MA151WA	MA151WA	MA151WA	*****
D931,932,961,962	*****	*****	*****	ERA15-02VH
D941	MA151WK	*****	MA151WK	*****
D964	*****	*****	*****	BR4361F
L701	LAU2R2K	LAU2R2K	*****	LAU2R2K
L702	*****	LAU2R2K	*****	LAU2R2K
L703	LCTB2R2K3216	*****	*****	*****
L941	LAU2R2K	*****	LAU2R2K	*****
L961	*****	*****	*****	LAU2R2K
X701	CSS1056 (4.332MHz)	CSS1338 (4.330MHz)	*****	CSS1338 (4.330MHz)
VR701	CCP1123	*****	*****	*****
FM/AM Tuner Unit	CWE1416	CWE1417	CWE1417	CWE1417
High Output Unit	*****	*****	*****	CWX1922
R502	RS1/16S472J	*****	*****	*****
R509	RS1/16S0R0J	RS1/16S0R0J	*****	RS1/16S0R0J
R514	RS1/16S105J	RS1/16S105J	*****	RS1/16S105J
R528	RS1/16S473J	RS1/16S0R0J	RS1/16S0R0J	RS1/16S0R0J
R551,552,554	RS1/16S103J	RS1/16S103J	RS1/16S103J	*****
R553	RS1/16S331J	RS1/16S331J	RS1/16S331J	*****

Tuner Amp Unit(2/3)

Circuit Symbol & No.	DEH-P825R/EW	DEH-P825/UC	DEH-P823/ES	DEX-P99/UC
	Part No.	Part No.	Part No.	Part No.
R555	RS1/16S101J	RS1/16S101J	RS1/16S101J	*****
R601-603	RS1/16S473J	RS1/16S473J	*****	RS1/16S473J
R614	RS1/16S472J	RS1/16S472J	*****	RS1/16S472J
R615	RS1/16S473J	RS1/16S473J	*****	*****
R632	RS1/16S473J	RS1/16S473J	RS1/16S563J	RS1/16S433J
R633	*****	*****	RS1/16S433J	RS1/16S563J
R634	*****	*****	*****	RS1/16S683J
R635	RS1/16S473J	RS1/16S473J	RS1/16S473J	RS1/16S303J
R636	*****	*****	*****	RS1/16S473J
R637	RS1/16S473J	RS1/16S473J	RS1/16S473J	*****
R639	RS1/16S473J	RS1/16S473J	*****	RS1/16S473J
R701	RA3C681J	*****	*****	*****
R702	RS1/16S0R0J	*****	*****	*****
R703	RS1/16S101J	*****	*****	*****
R704	RS1/16S681J	RS1/16S681J	*****	RS1/16S681J
R705,712	RS1/16S681J	RS1/16S681J	*****	RS1/16S681J
R706	RS1/16S0R0J	*****	*****	*****
R707	RS1/16S473J	*****	*****	*****
R708	RS1/16S681J	*****	*****	*****
R709	RS1/16S562J	*****	*****	*****
R710	RS1/16S222J	RS1/16S0R0J	*****	RS1/16S0R0J
R711,717	RS1/16S681J	*****	*****	*****
R713,735	RS1/16S473J	RS1/16S473J	*****	RS1/16S473J
R714	RA3C681J	*****	*****	RA3C681J
R718-722,748-751	*****	RS1/16S473J	*****	RS1/16S473J
R724	RS1/16S102J	*****	*****	*****
R725	RA3C102J	*****	*****	*****
R728,729	RS1/10S102J	*****	*****	*****
R730	RS1/16S0R0J	*****	*****	*****
R731	RS1/16S333J	*****	*****	*****
R732	RS1/10S151J	*****	*****	*****
R733	RS1/16S222J	*****	*****	*****
R734	RS1/16S102J	*****	*****	*****
R736	RS1/16S223J	*****	*****	*****
R738	RS1/16S223J	*****	*****	*****
R752-764,766-768,770	*****	RS1/16S102J	*****	RS1/16S102J
R765,769,771	*****	RS1/10S102J	*****	RS1/10S102J
R772-779	*****	RS1/16S102J	*****	RS1/16S102J
R805,806	*****	*****	*****	RS1/16S102J
R818,819	*****	*****	*****	RS1/16S103J
R837,838	RS1/16S332J	RS1/16S182J	RS1/16S182J	RS1/16S182J
R843,844	RS1/16S224J	*****	*****	*****
R845	RS1/16S824J	*****	*****	*****
R876,877	RS1/16S184J	RS1/16S184J	RS1/16S184J	RS1/16S0R0J
R881,882,887,888,891,892	RS1/16S821J	RS1/16S821J	RS1/16S821J	*****
R883-886,889,890	RS1/16S223J	RS1/16S223J	RS1/16S223J	*****
R941	RS1/10S183J	*****	RS1/10S183J	*****

Tuner Amp Unit(3/3)

Circuit Symbol & No.	DEH-P825R/EW	DEH-P825/UC	DEH-P823/ES	DEX-P99/UC
	Part No.	Part No.	Part No.	Part No.
R942,943	RS1/16S472J	*****	RS1/16S472J	*****
R944	RS1/16S102J	*****	RS1/16S102J	*****
R961	*****	*****	*****	RS1/10S103J
R962	*****	*****	*****	RS1/10S223J
R963	*****	*****	*****	RS1/10S272J
R965	*****	*****	*****	RS1/10S103J
R966	*****	*****	*****	RS1/10S102J
R967	*****	*****	*****	RS1/10S0R0J
C503	CEAR47M50LL	*****	*****	*****
C505	*****	*****	CKSQYB103K25	*****
C533	CKSQYB152K50	*****	*****	*****
C551-554	CKSYB224K16	CKSYB224K16	CKSYB224K16	*****
C555	CEA330M16LL	CEA330M16LL	CEA330M16LL	*****
C556,560	CEA010M50LL	CEA010M50LL	CEA010M50LL	*****
C557	CEA220M16LL	CEA220M16LL	CEA220M16LL	*****
C561	CKSQYB104K50	CKSQYB104K50	CKSQYB104K50	*****
C701	CKSQYB103K25	CKSQYB103K25	*****	CKSQYB103K25
C702	CKSQYB104K16	CKSQYB104K16	*****	CKSQYB104K16
C704	CKSQYB102K50	CKSQYB102K50	*****	CKSQYB102K50
C705,706	CCSQCH270J50	*****	*****	*****
C707,716	CEA100M16LL	*****	*****	*****
C708,715	CKSQYB103K25	*****	*****	*****
C709	CKSQYB102K50	*****	*****	*****
C710	CKSQYB472K50	*****	*****	*****
C711	CKSQYB104K16	*****	*****	*****
C712	CSZS010M16	*****	*****	*****
C713	CKSYB104K16	*****	*****	*****
C714	CKSQYB222K50	*****	*****	*****
C717	*****	CEA100M16LL	*****	CEA100M16LL
C718	CKSQYB103K25	*****	*****	*****
C720	CEA4R7M16NPLL	*****	*****	*****
C722	CKSQYB103K25	*****	*****	*****
C723,724	CCSQCH330J50	*****	*****	*****
C725	CKSQYB471K50	*****	*****	*****
C726	CCSQCH101J50	*****	*****	*****
C730	CSZA010K25	*****	*****	*****
C825,826	*****	*****	*****	CEA010M50LL
C839,840	CKSQYB223K25	CKSQYB473K16	CKSQYB473K16	CKSQYB473K16
C841	CKSQYB103K25	*****	*****	*****
C881,882,885,886,889	CEA100M16LL	CEA100M16LL	CEA100M16LL	*****
C883,884,887,888,891,892	CCSQCH221J50	CCSQCH221J50	CCSQCH221J50	*****
C890	CEA100M16LL	CEA100M16LL	CEA100M16LL	*****
C894,895	CKSYB105K16	CKSYB105K16	CKSYB105K16	*****
C931	*****	*****	*****	CKSQYB473K50
C961	*****	*****	*****	CKSQYB103K50

Key Board Unit

Circuit Symbol & No.	DEH-P825R/EW	DEH-P825/UC	DEH-P823/ES	DEX-P99/UC
	Part No.	Part No.	Part No.	Part No.
LCD901	CAW1332	CAW1333	CAW1333	CAW1363
R4935,4936	RS1/16S102J	RS1/16S102J	RS1/16S102J	RS1/16S473J

9. LCD

● CAW1332(DEH-P825R/EW)

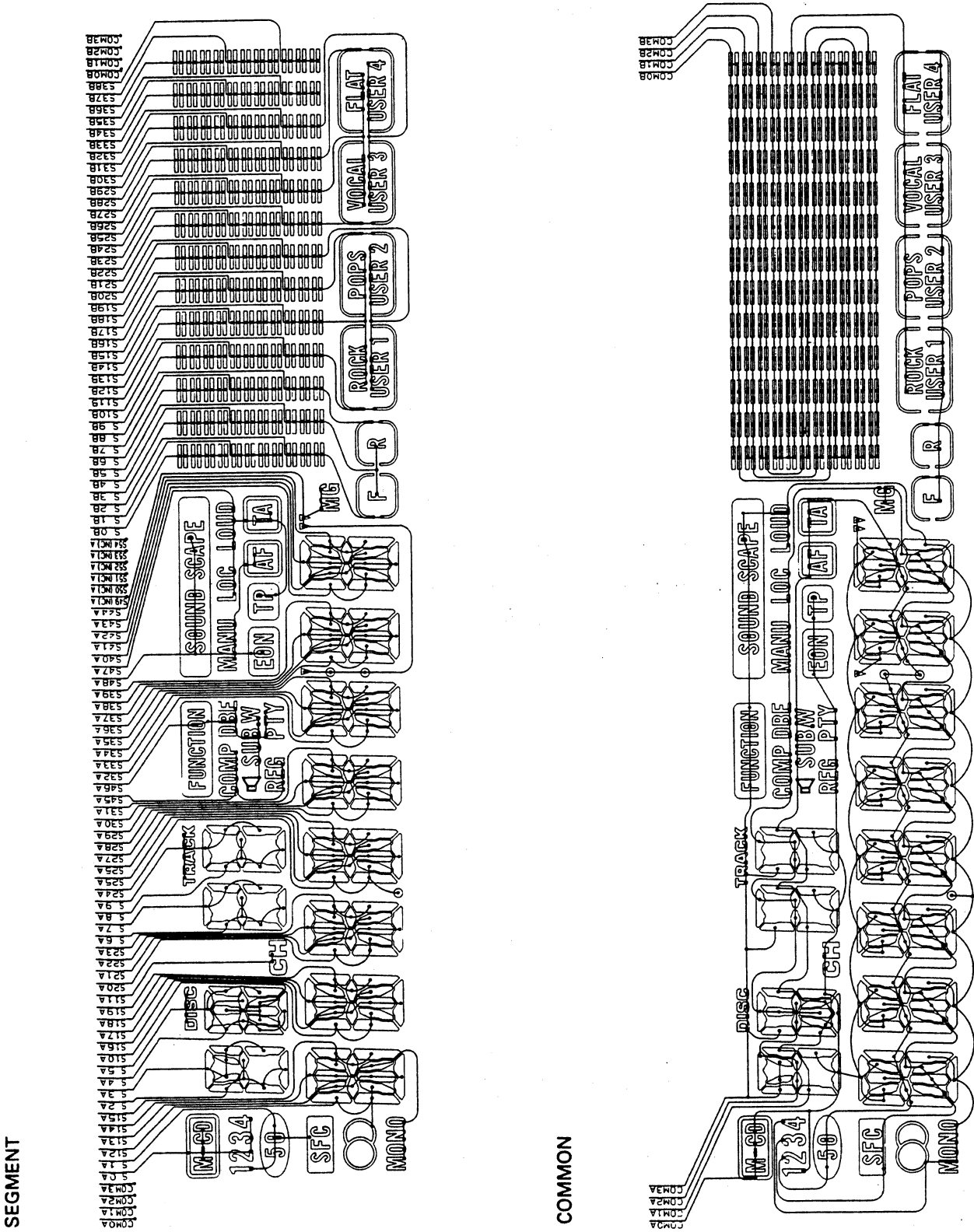
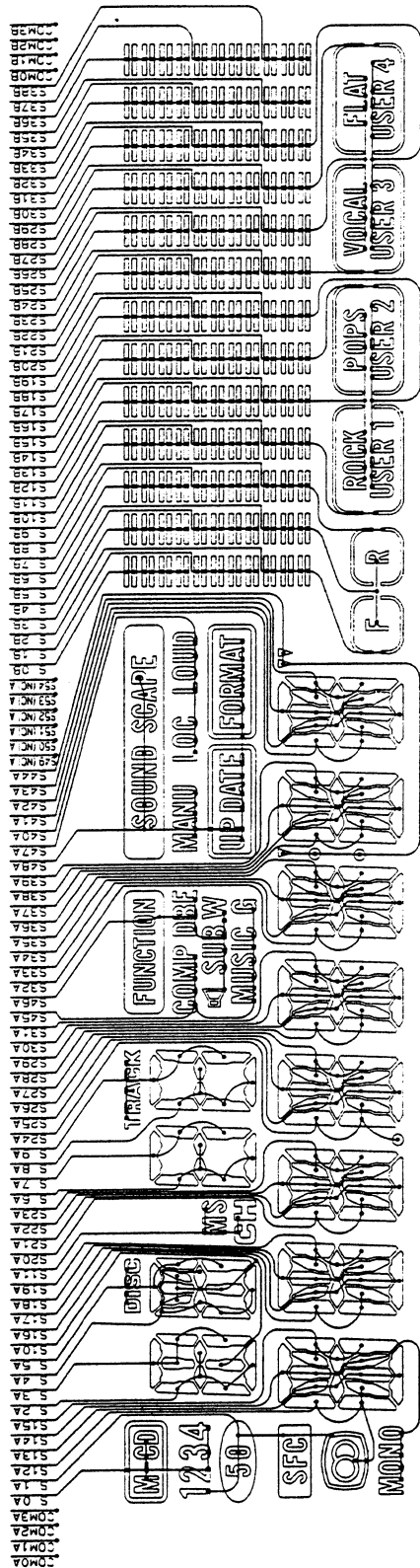


Fig.5

● CAW1333(DEH-P825/UC,P823/ES),CAW1363(DEX-P99/UC)

SEGMENT



COMMON

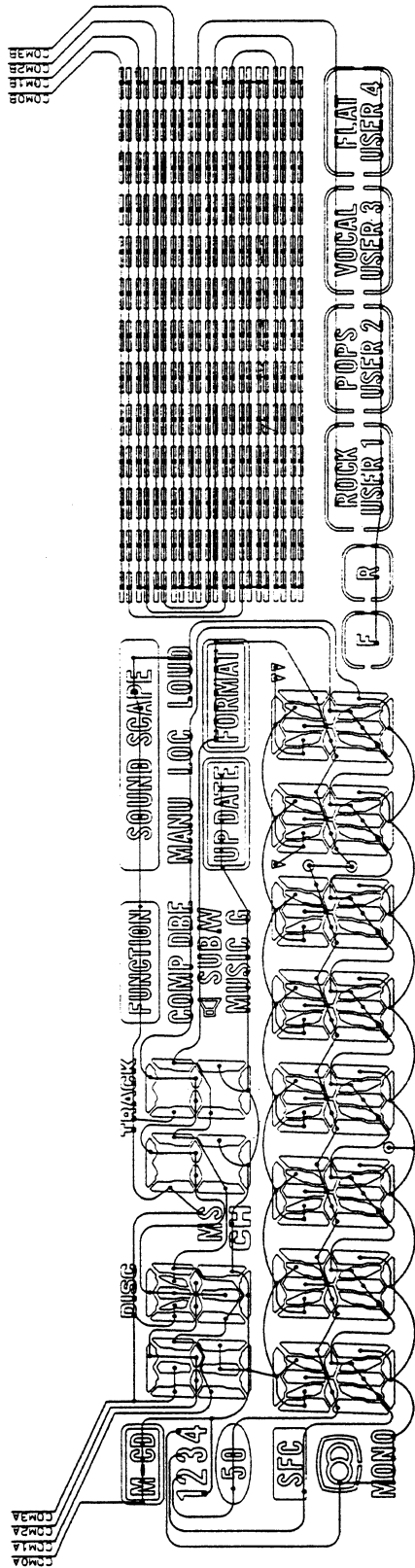


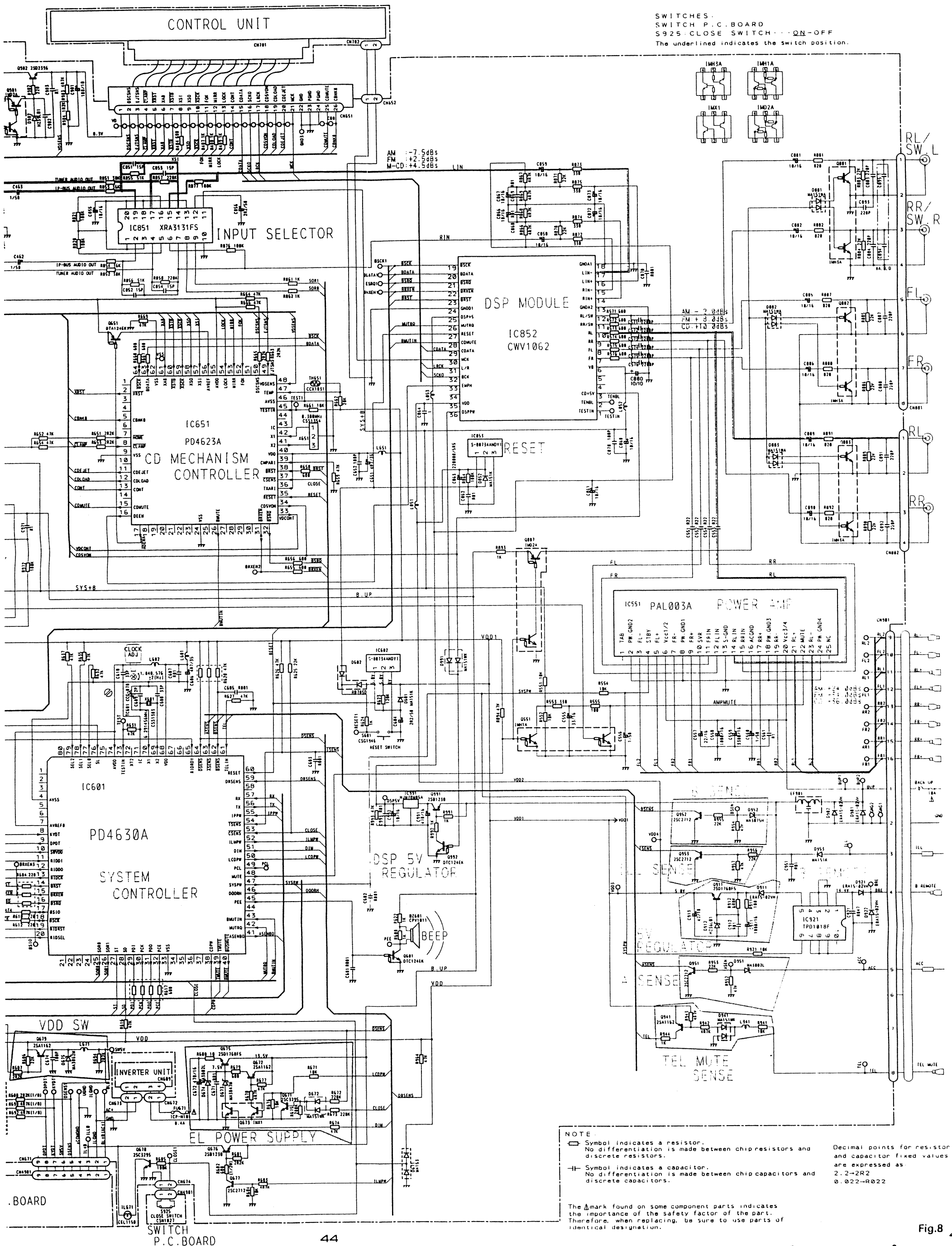
Fig.6

11. CIRCUIT DIAGRAM AND PATTERN

11.1 TUNER AMP UNIT, SWITCH P.C.BOARD

● Circuit Diagram (DEH-P825R/EW)





A

B

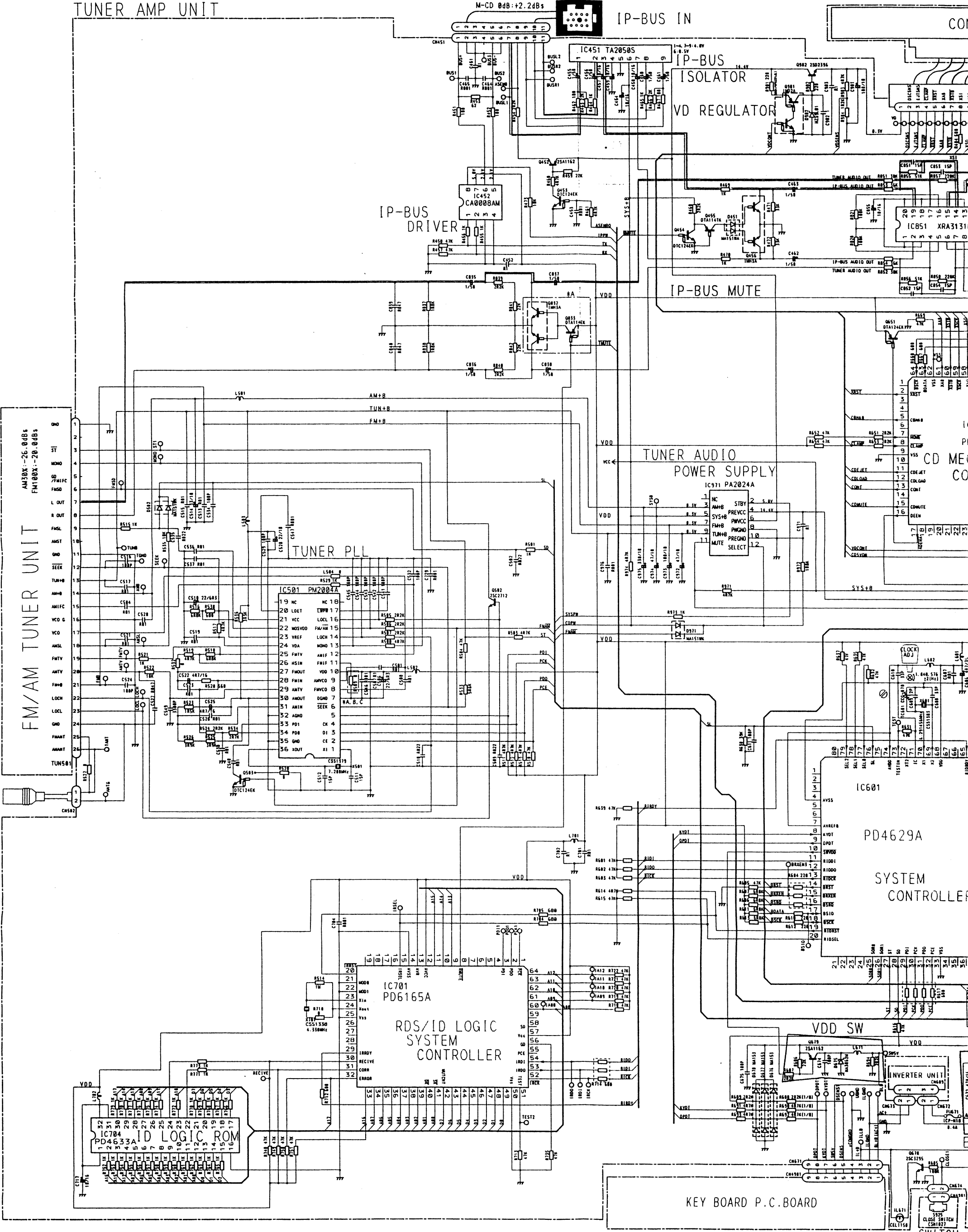
C

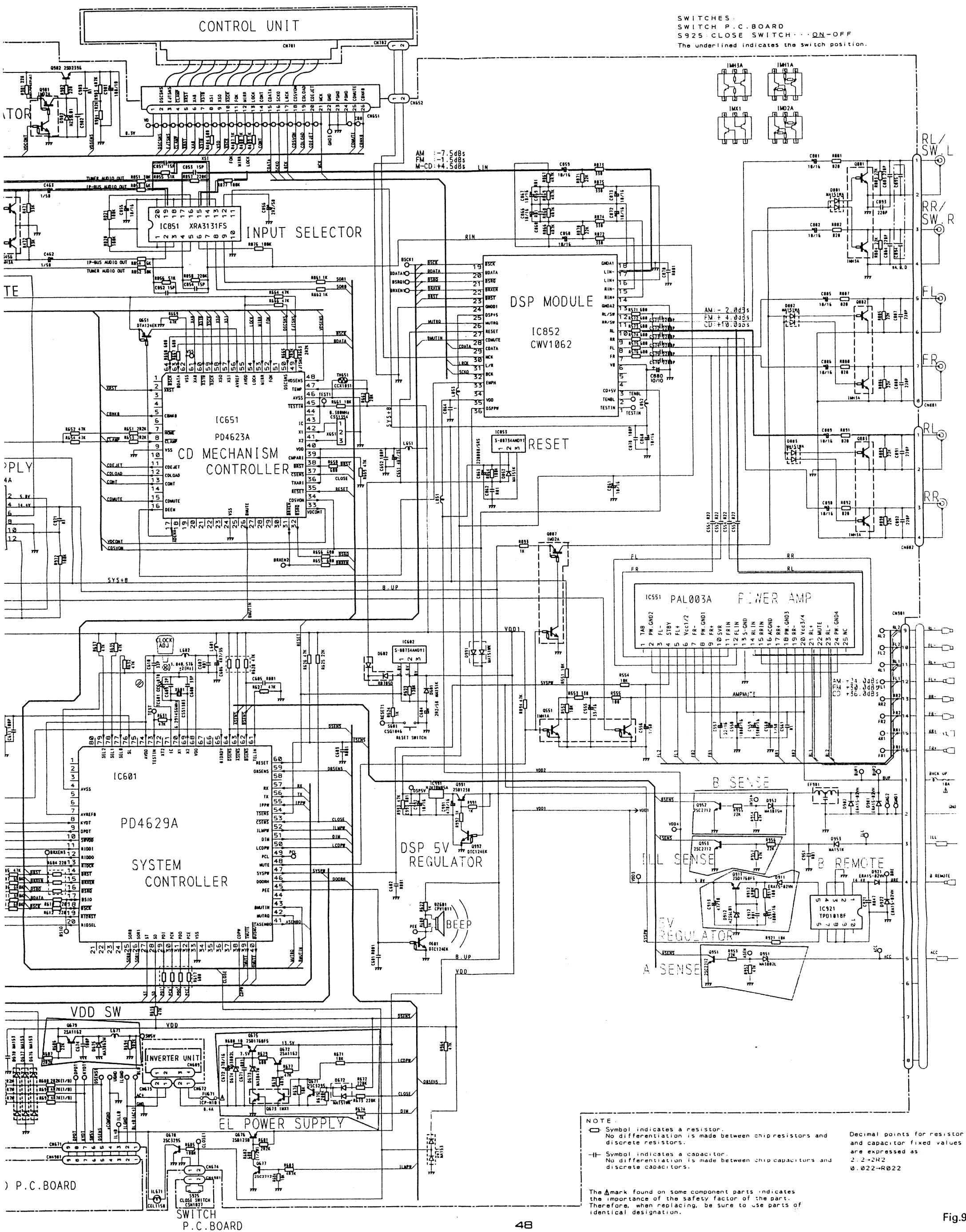
D

E

F

● Circuit Diagram (DEH-P825/UC)







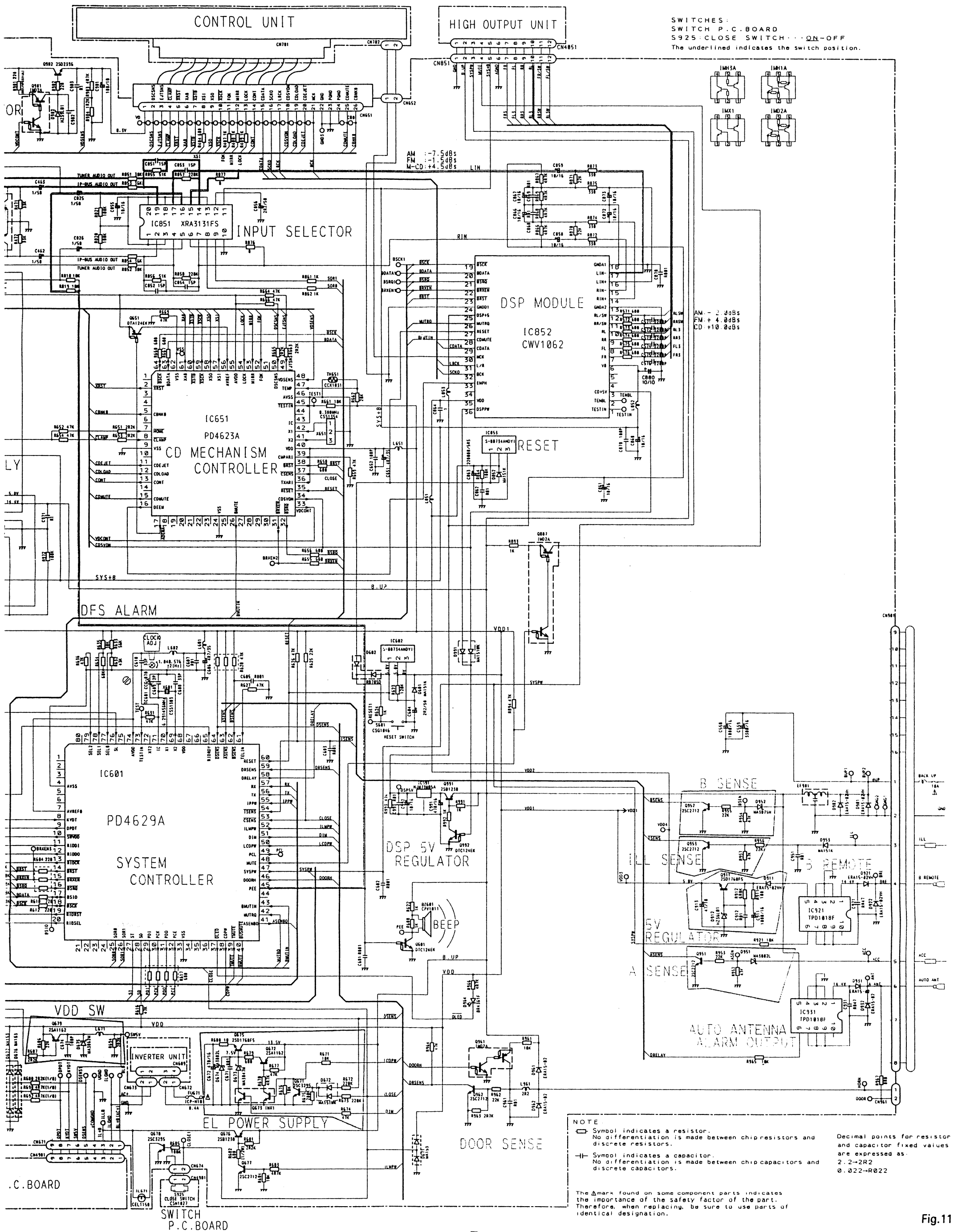
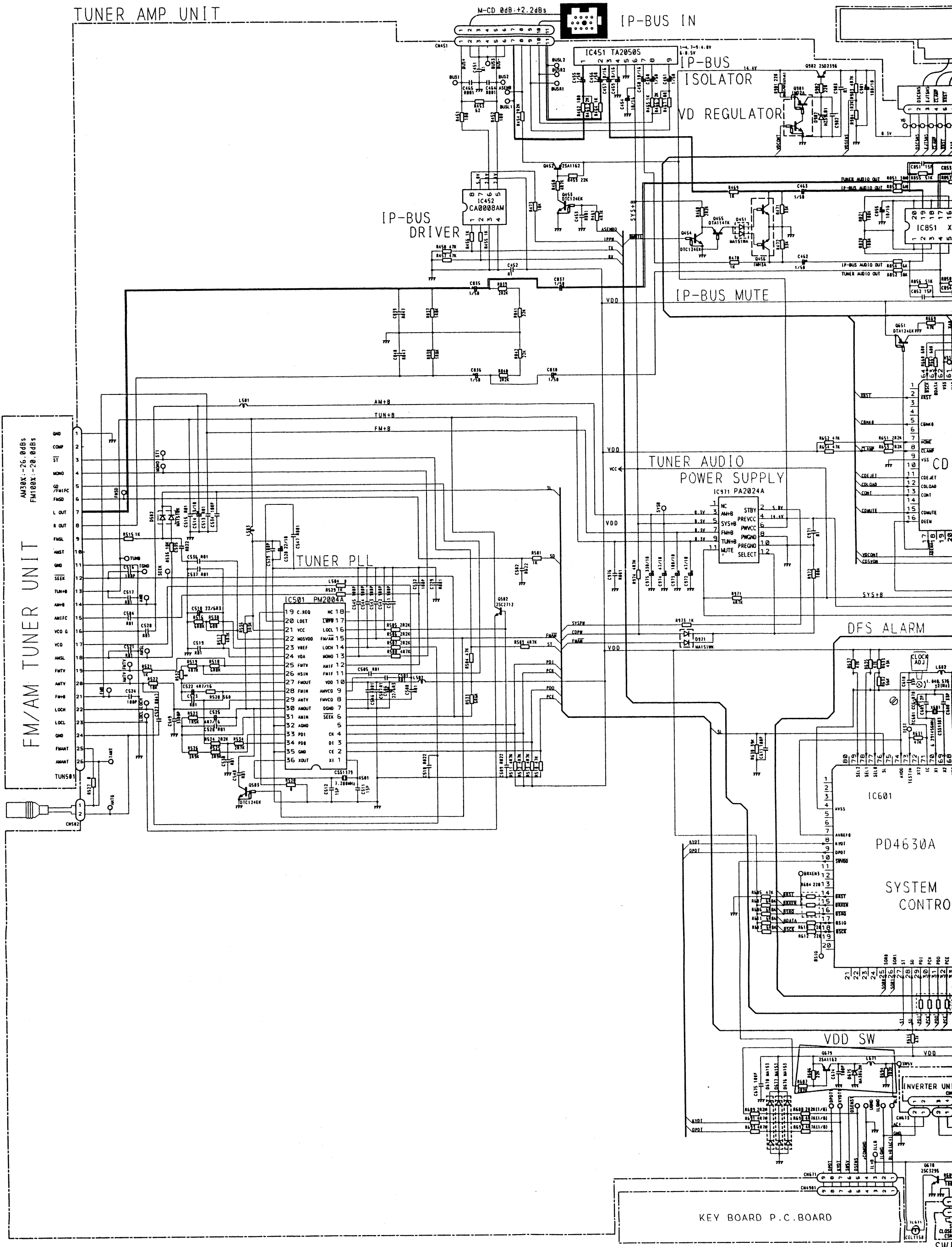


Fig.11



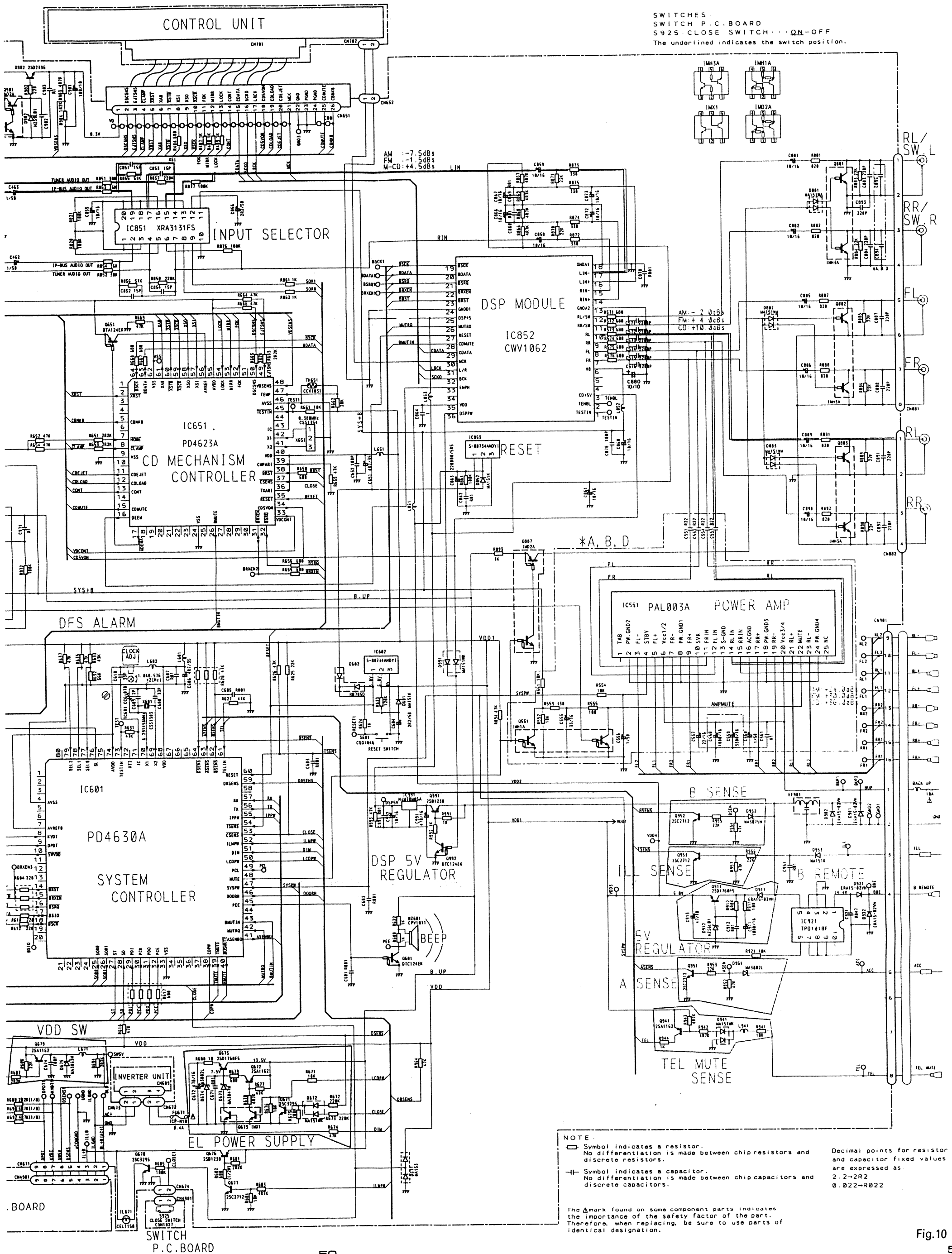
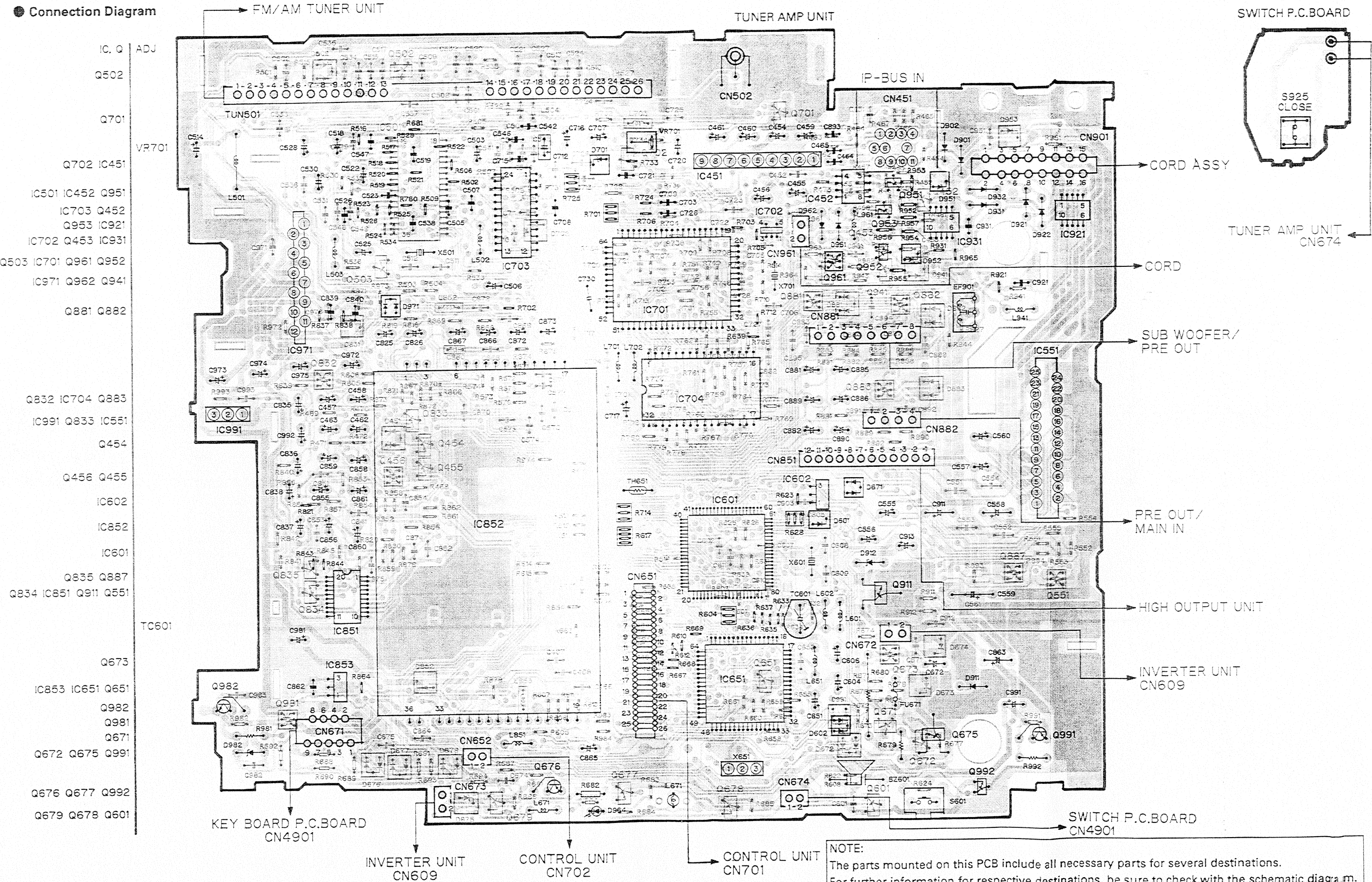


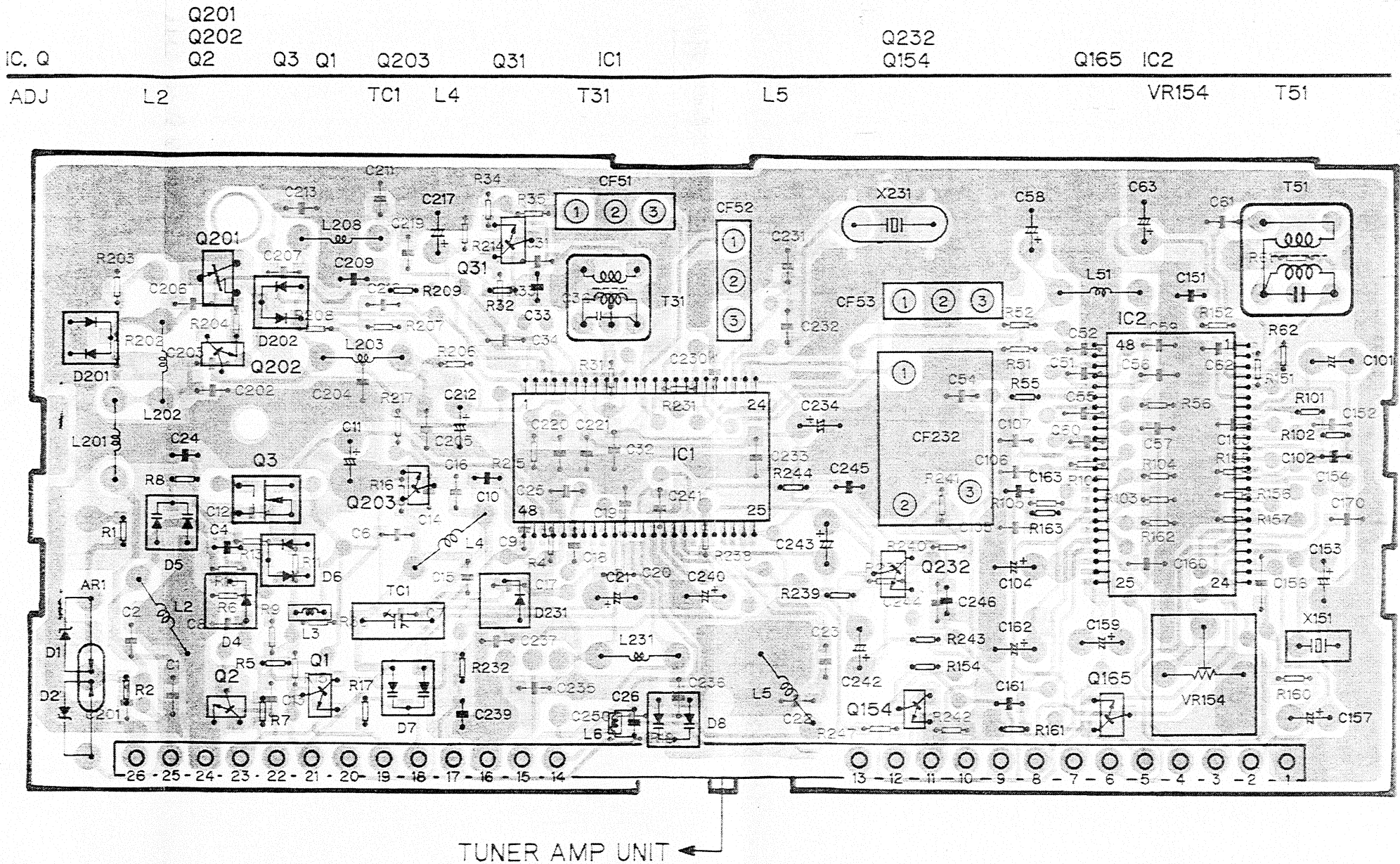
Fig.10

● Connection Diagram



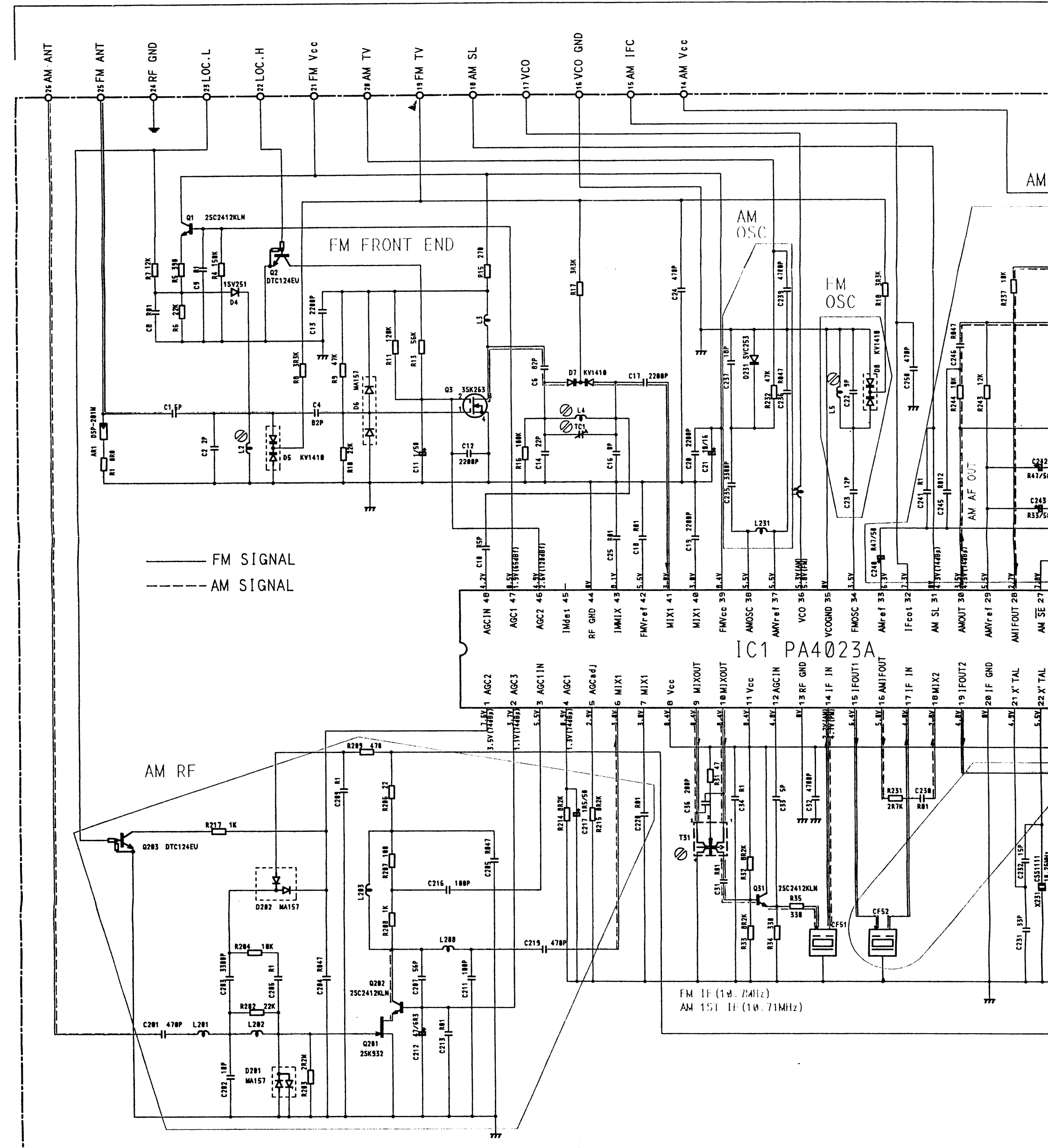
11.2 FM/AM TUNER UNIT

● Connection Diagram



NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig.13



TUNER AMP UNIT

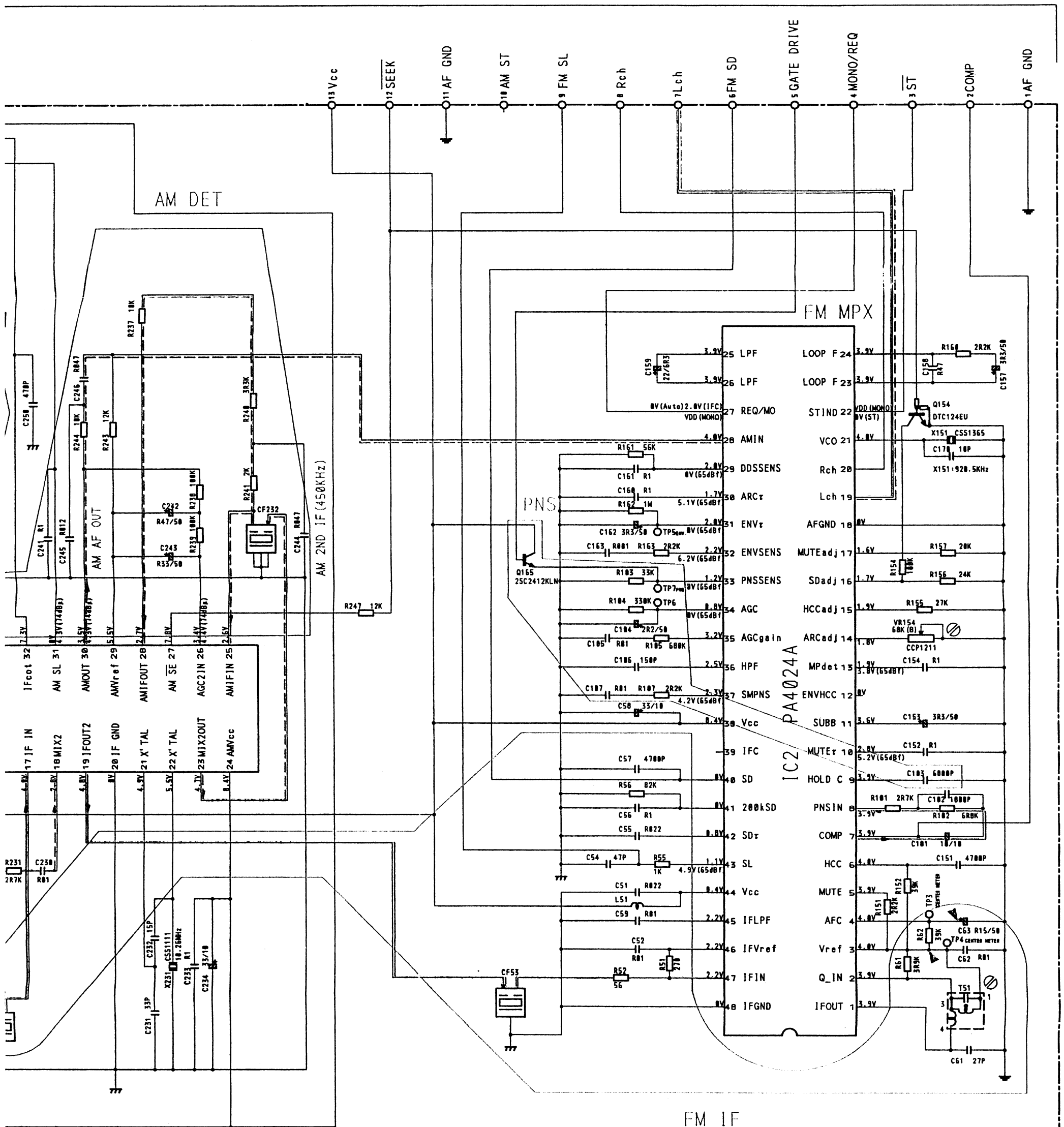


Fig.14

TUNER AMP UNIT

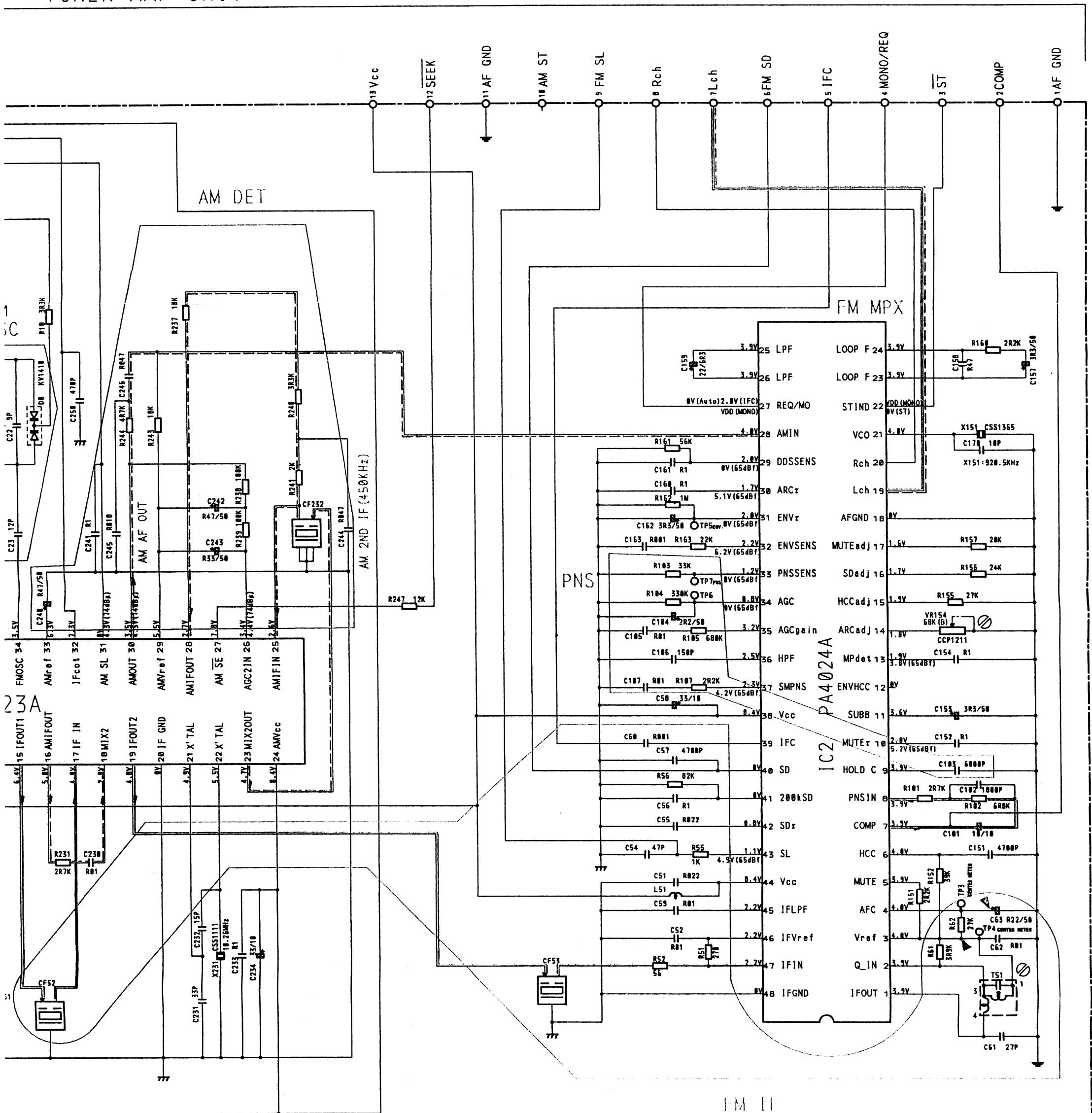
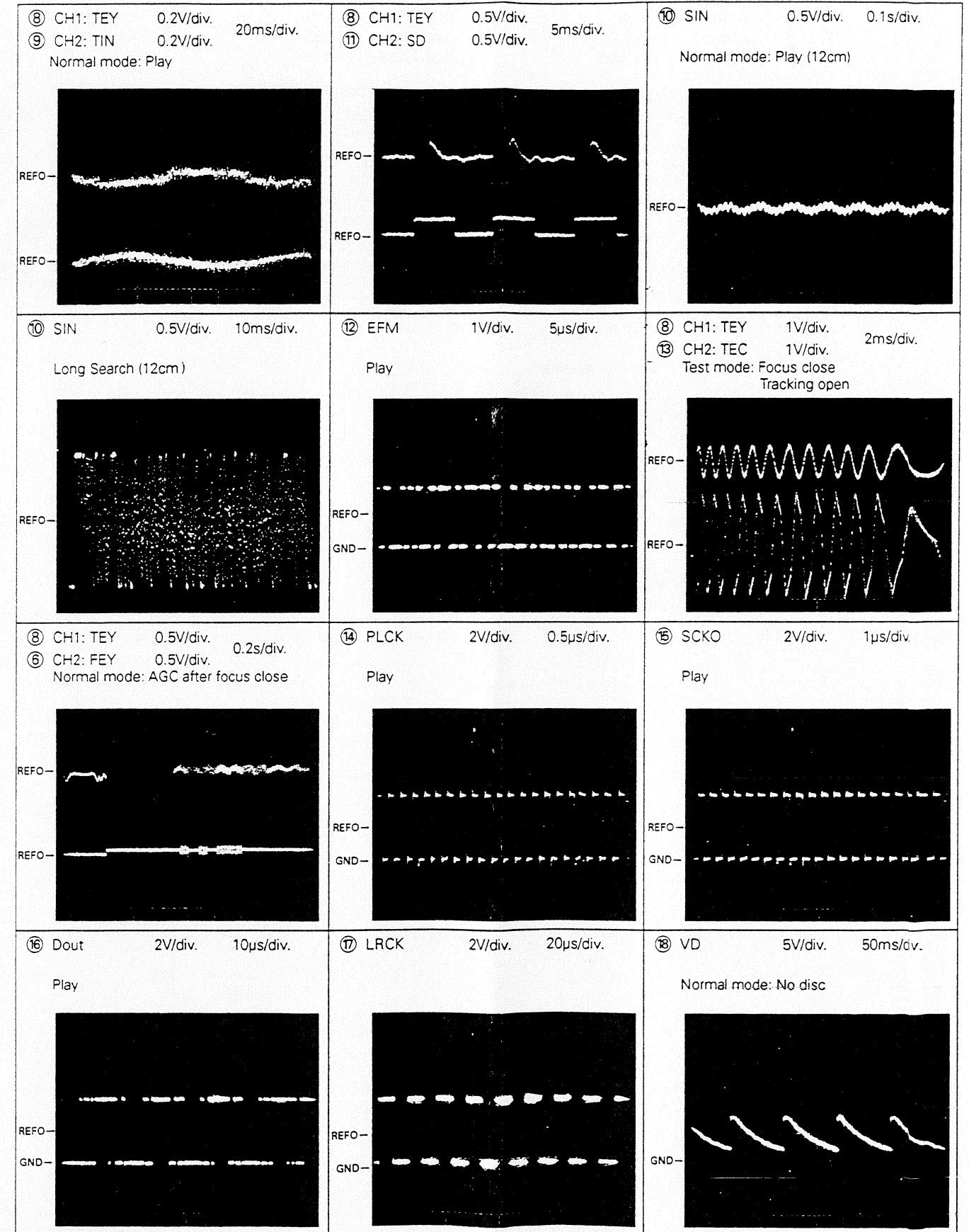
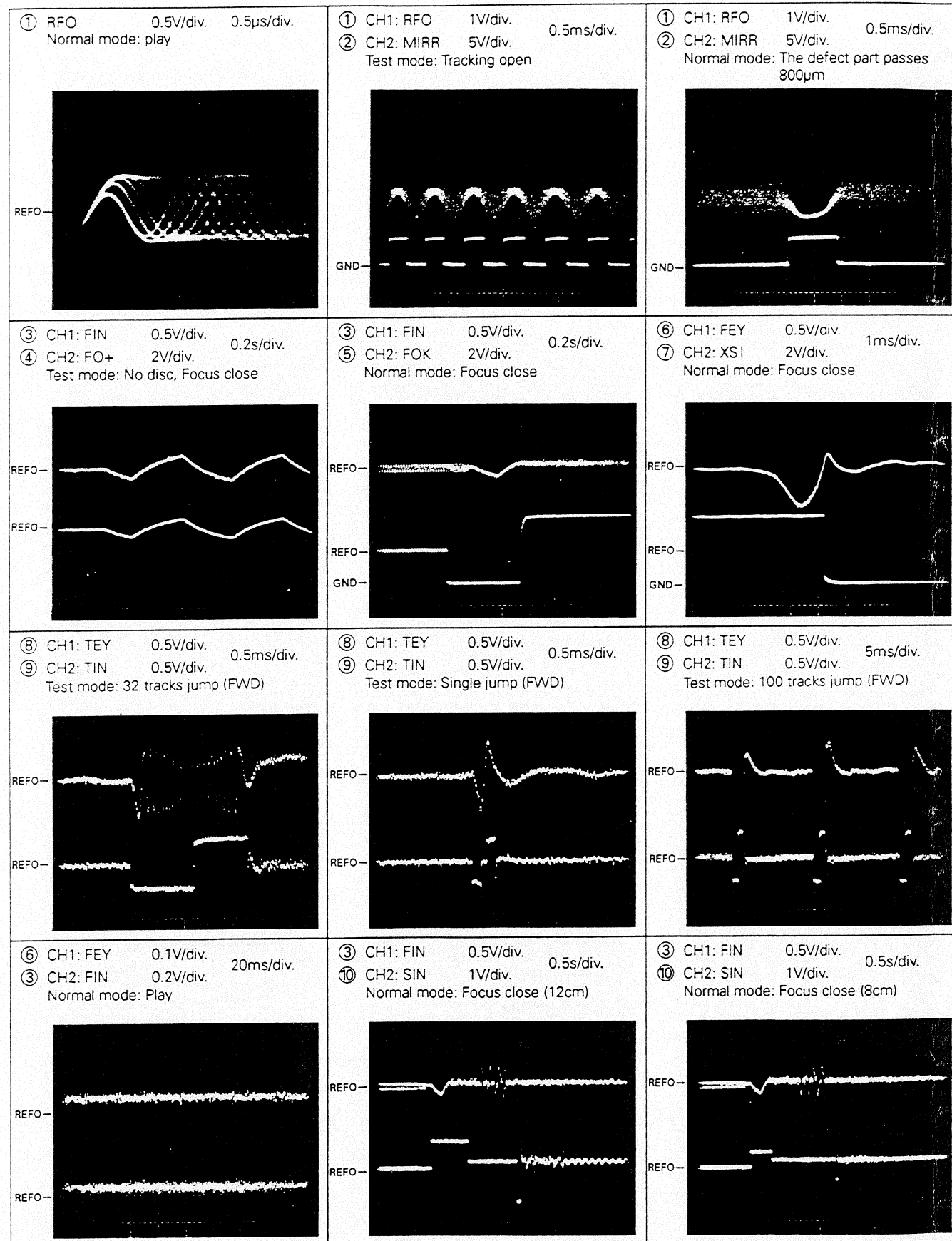
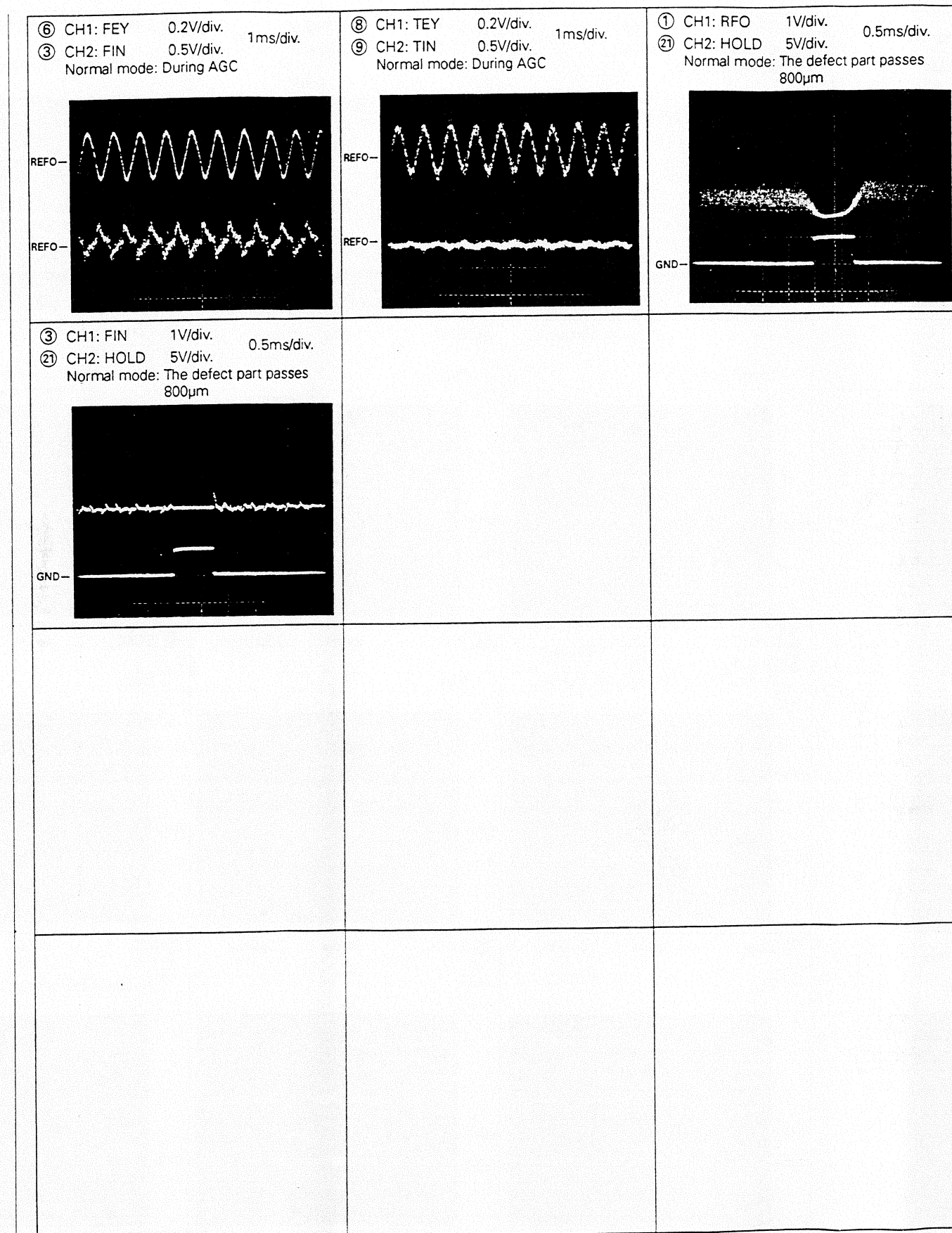


Fig.15

● Waveforms

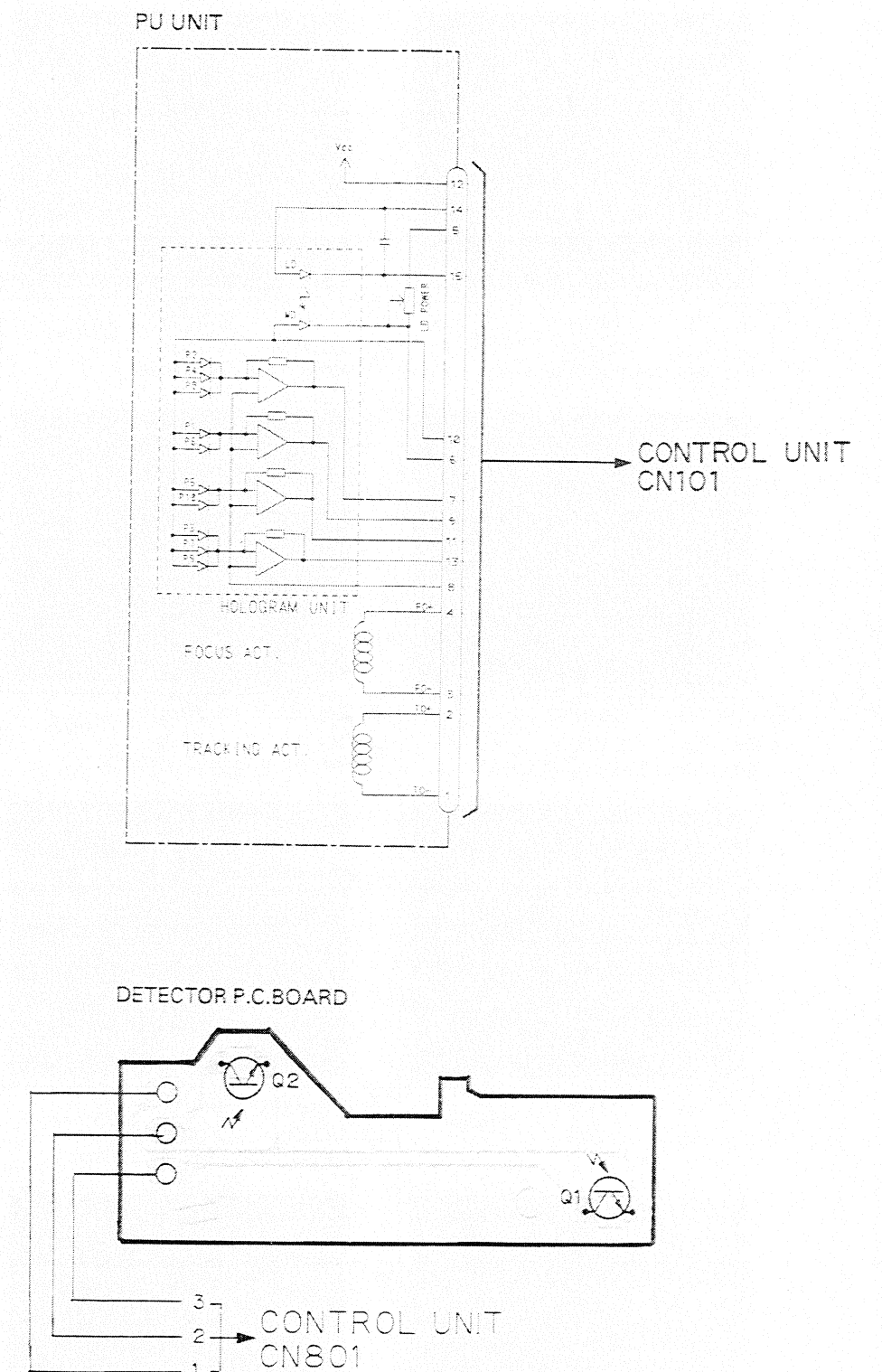
Note: 1. The encircled numbers denote measuring points in the circuit diagram.
2. Reference voltage
REFO: 2.5V

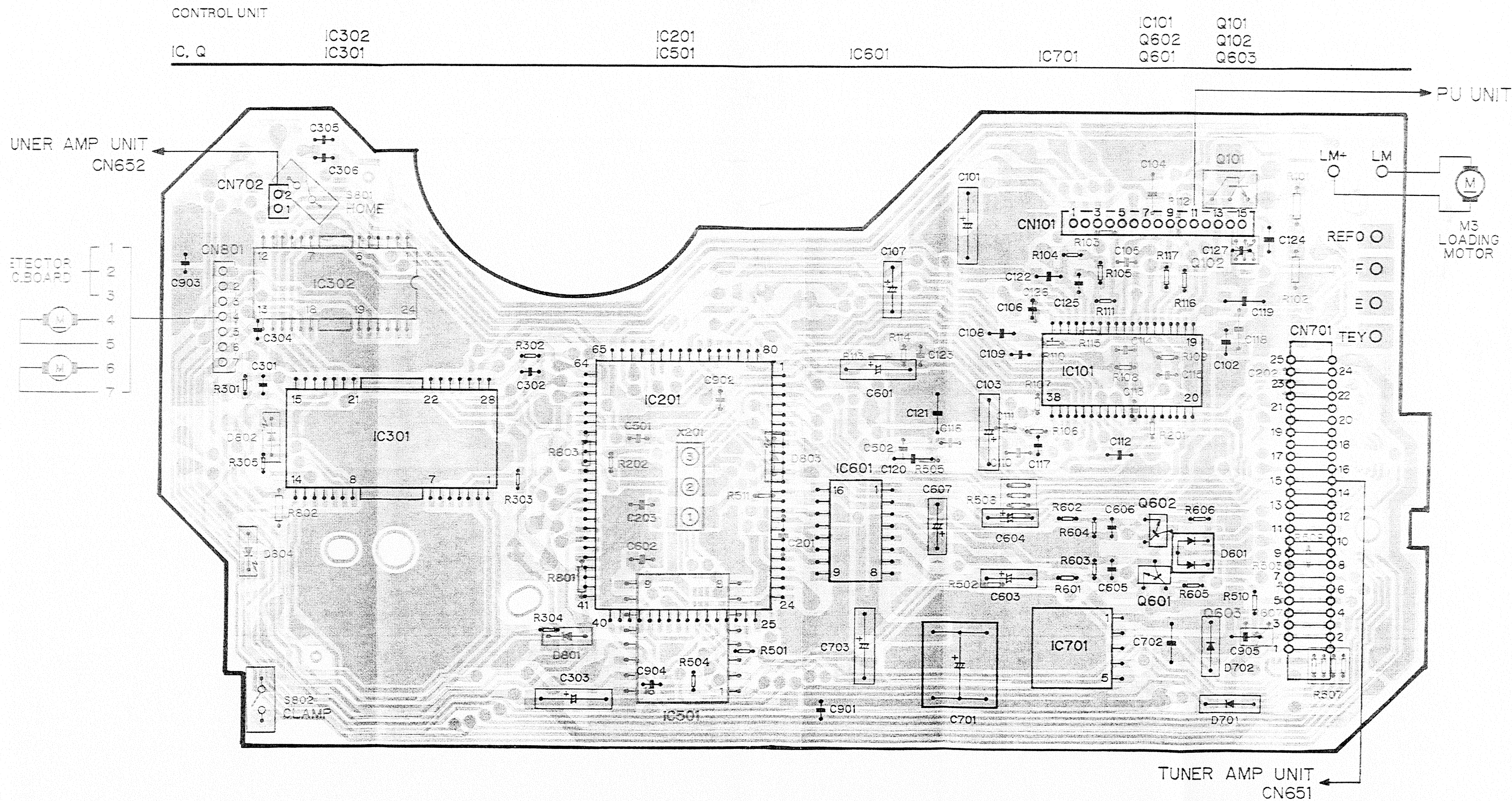




11.3 CD MECHANISM MODULE

● Connection Diagram



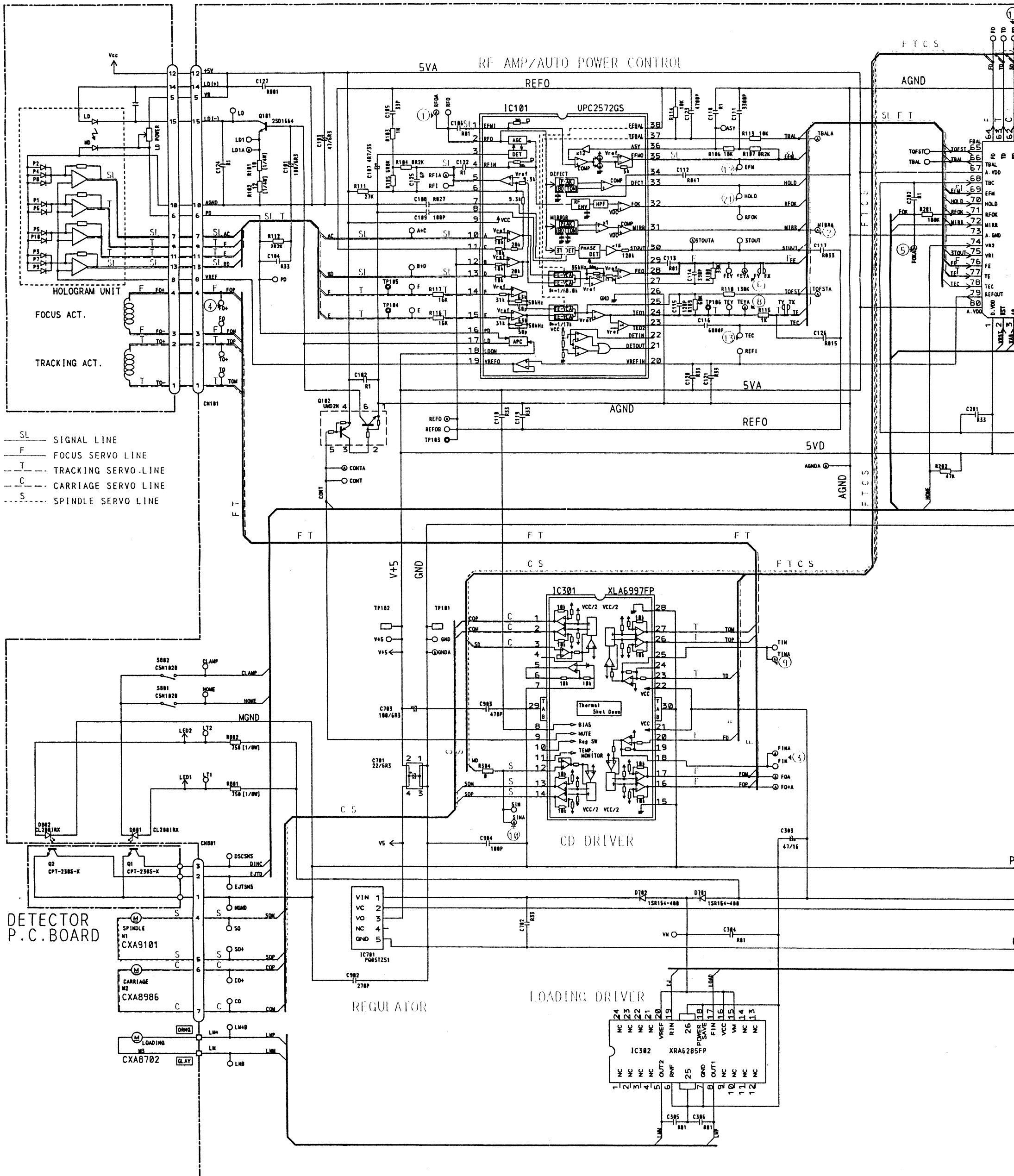


NOTE:
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

Fig.16

● Circuit Diagram

PU UNIT(CGY1070) CONTROL UNIT



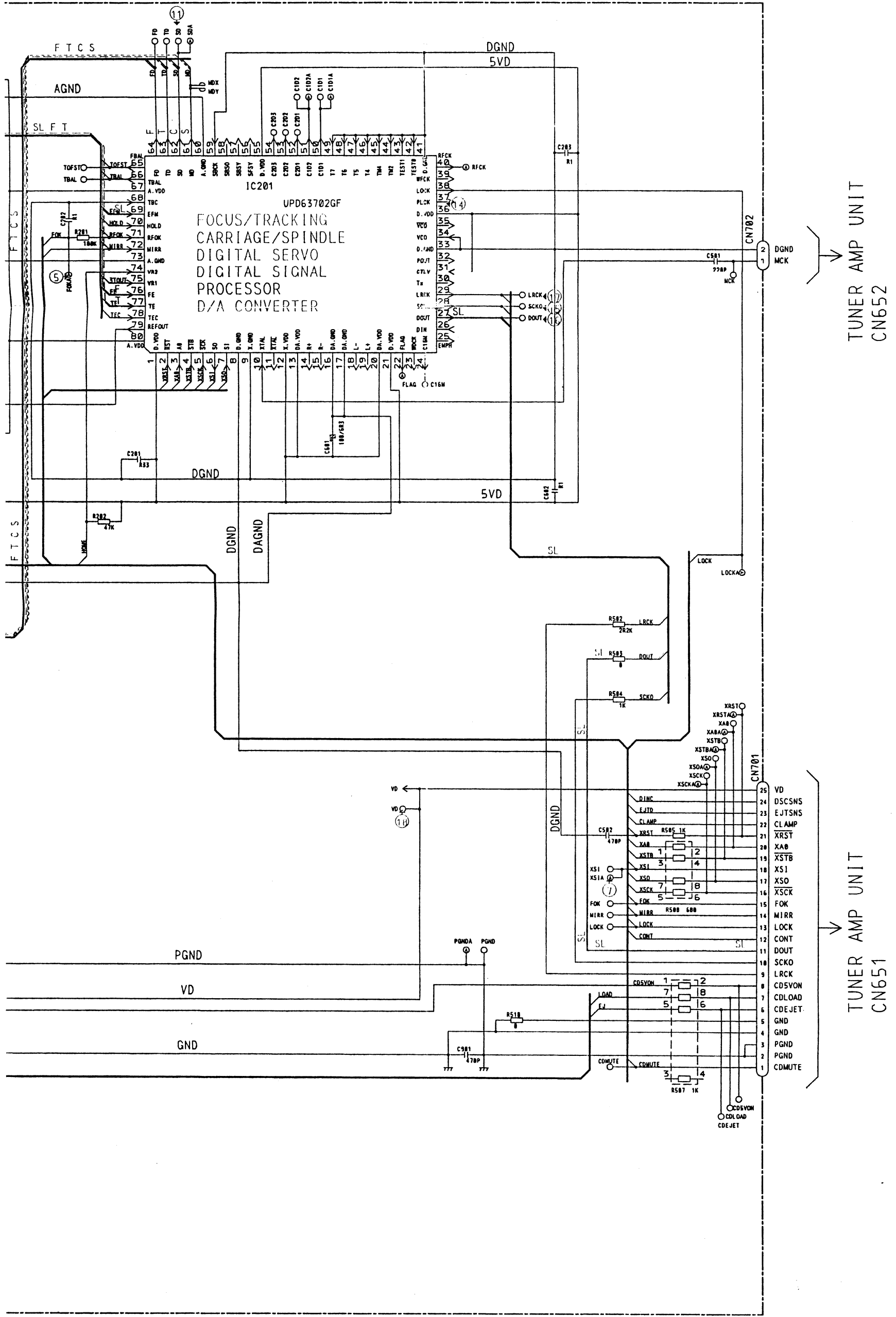


Fig.17

11.4 INVERTER UNIT

● Circuit Diagram

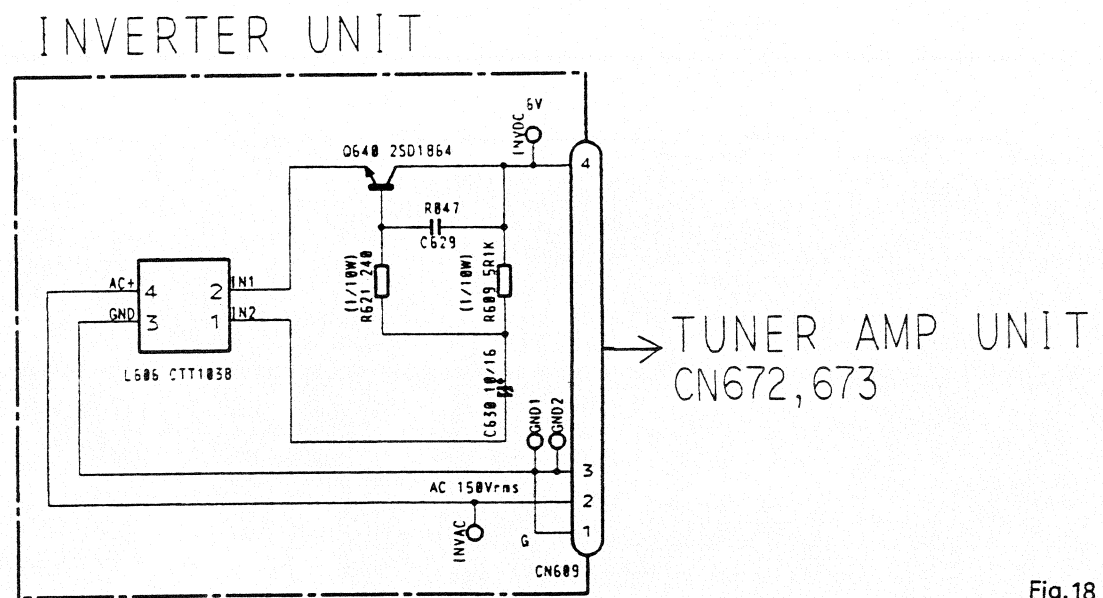


Fig.18

● Connection Diagram

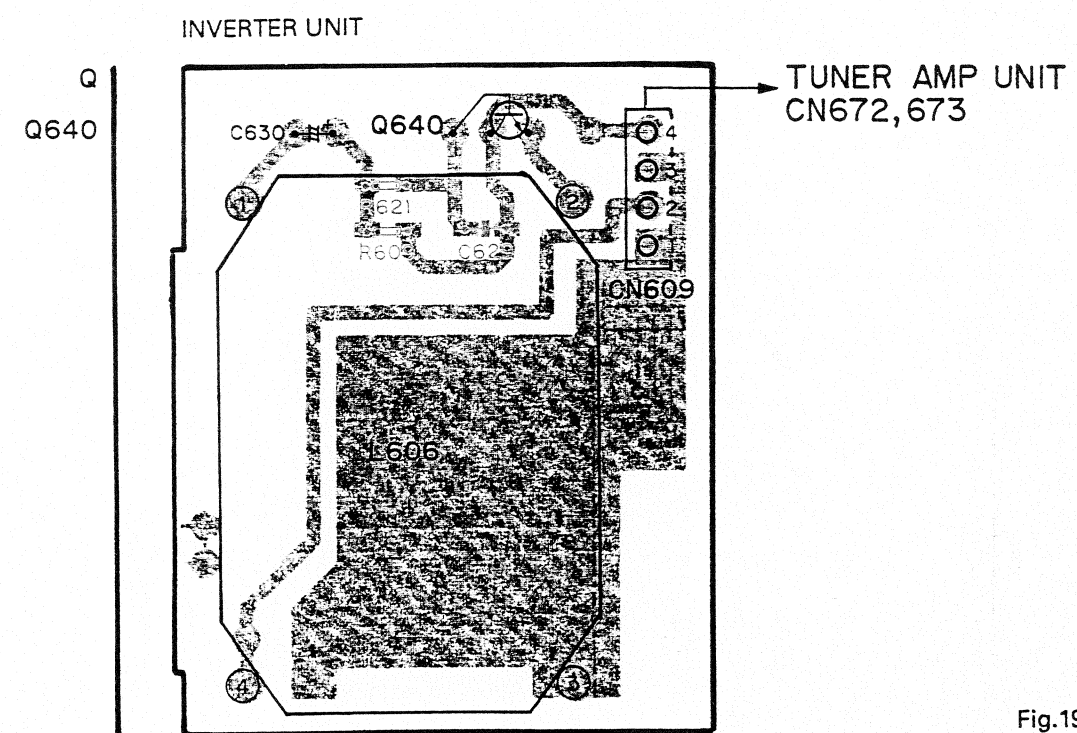
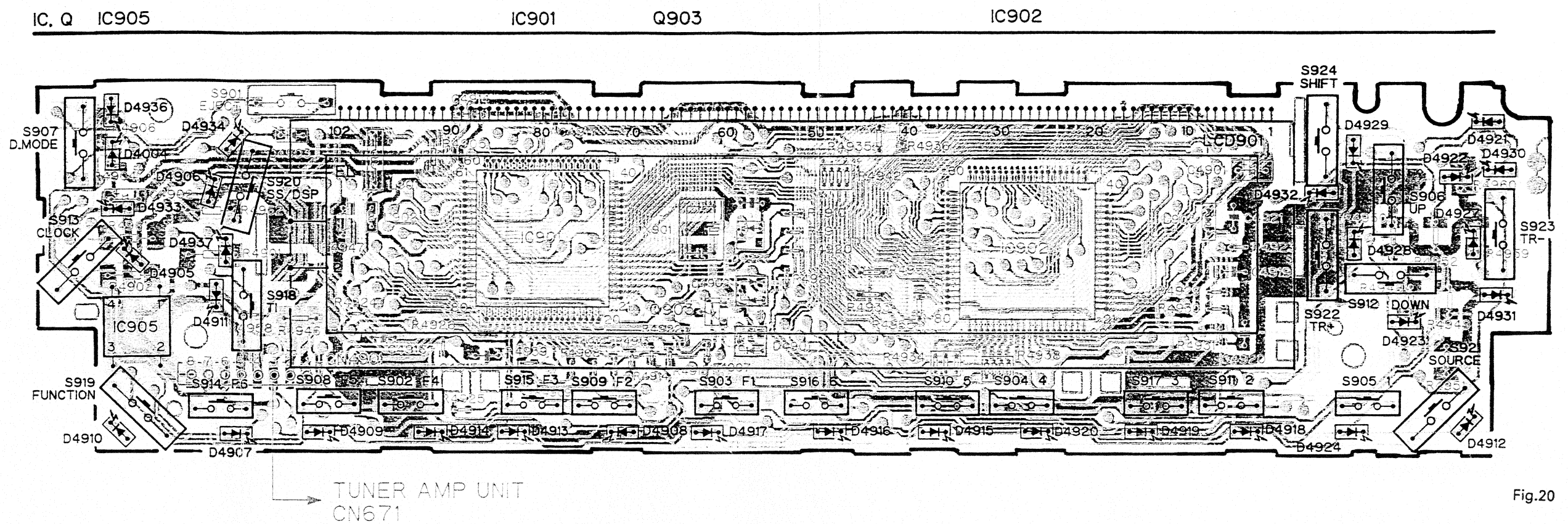


Fig.19

11.5 KEY BOARD P.C.BOARD

● Connection Diagram



KEY BOARD P.C. BOARD

● Circuit Diagram

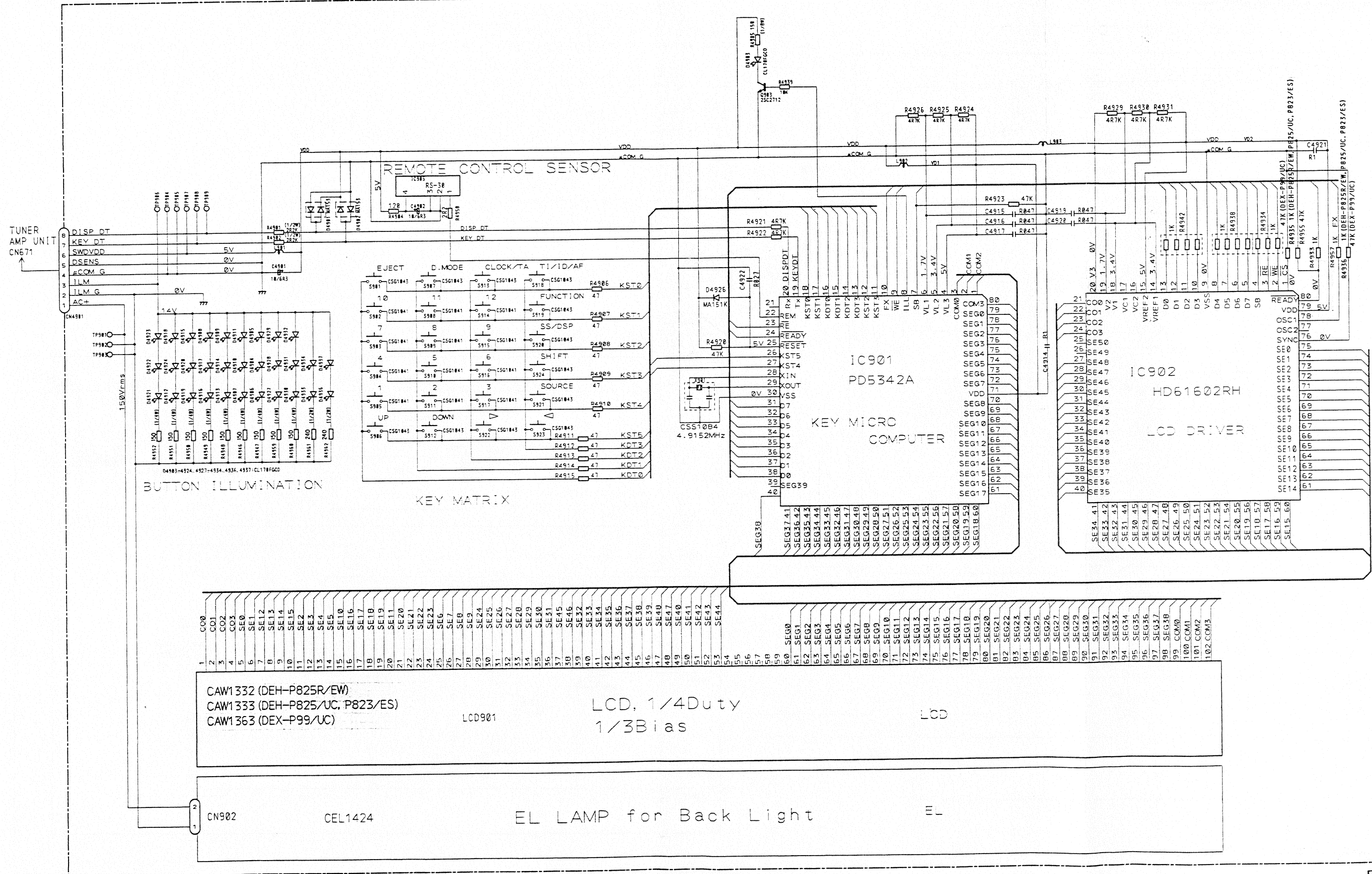


Fig.21

● Connection Diagram(HIGH OUTPUT UNIT)

Q4151
IC, Q IC4151 IC4251 Q4251 IC4351 Q4351

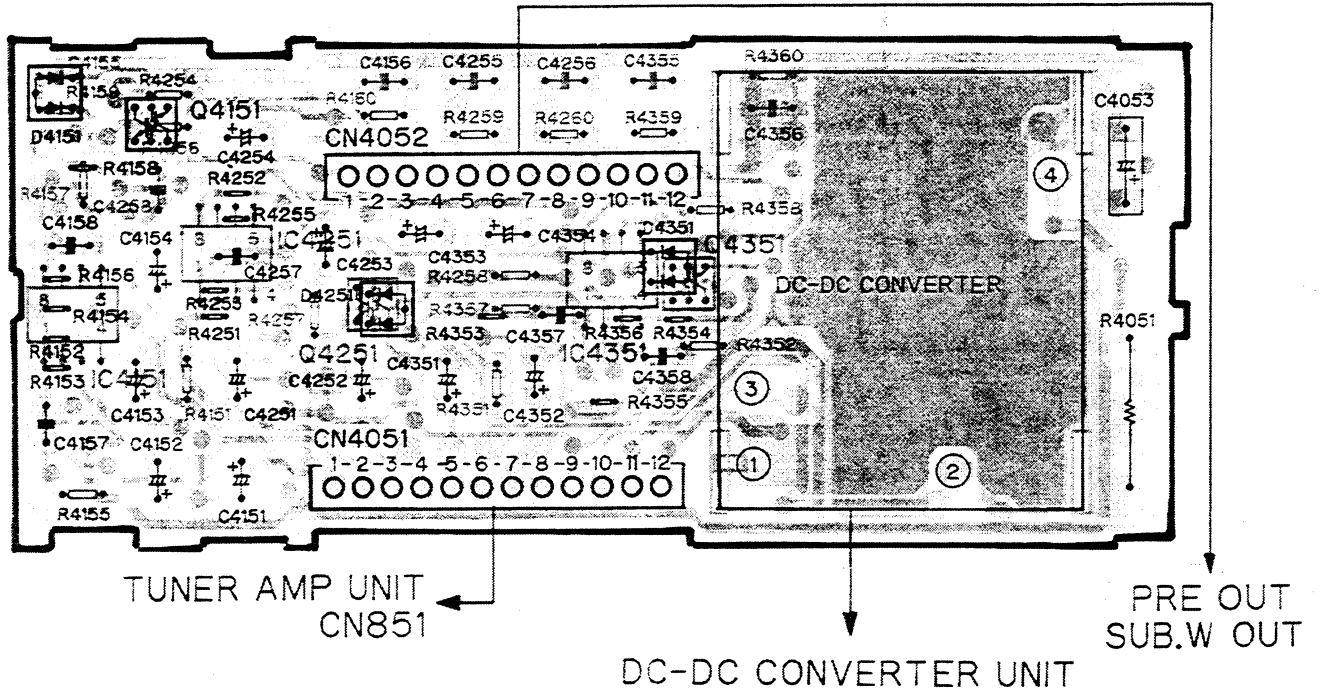


Fig.23

● Connection Diagram(DC-DC CONVERTER UNIT)

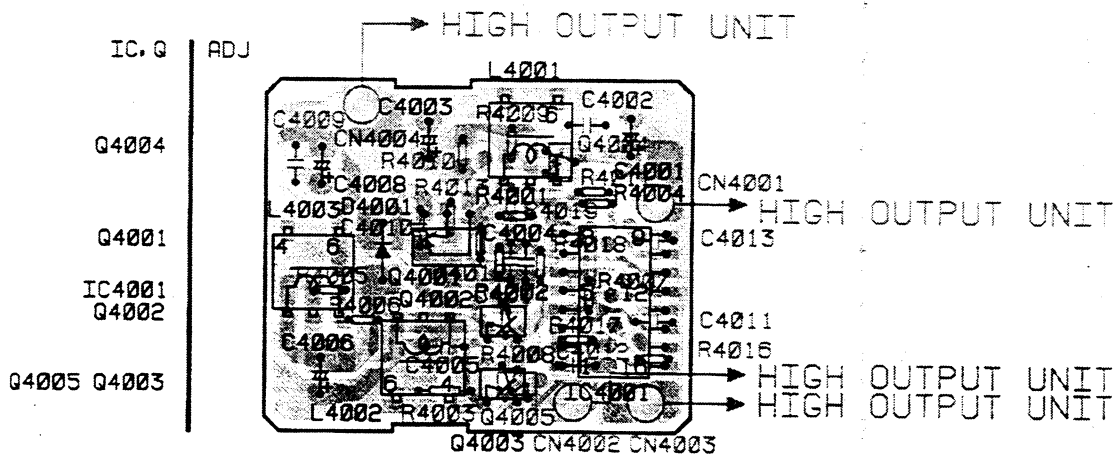
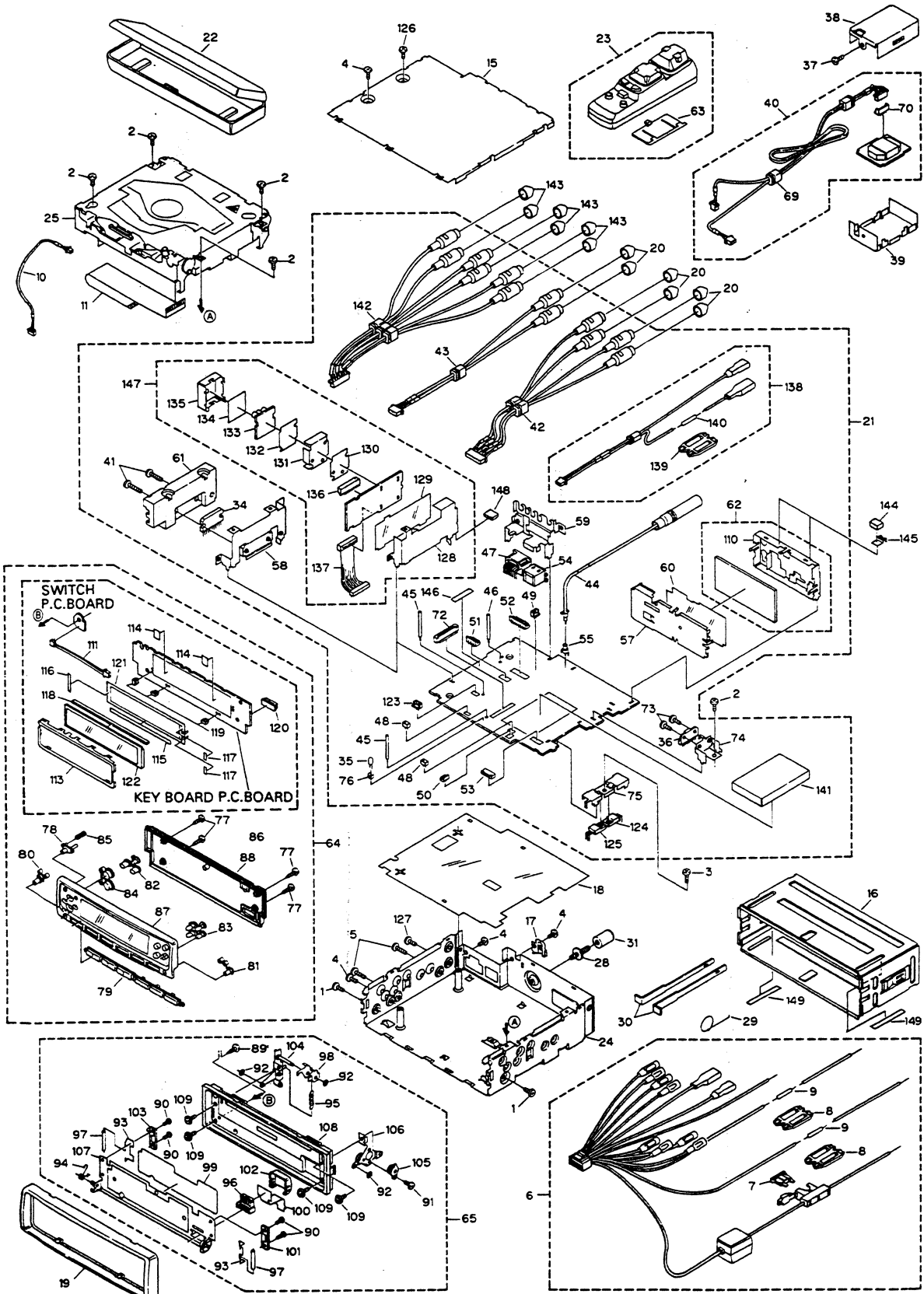


Fig.24

12. EXPLODED VIEW AND PARTS LIST

12.1 CHASSIS



DEH-P825R,P825,P823,DEX-P99

NOTE:

● Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.

● Parts List (DEH-P825R/EW)

Mark No	Description	Part No	Mark No	Description	Part No
1	Screw	BMZ30P040FMC	50	Plug(CN673)	CKS1236
2	Screw	BSZ26P050FMC	51	Plug(CN882)	CKS1238
3	Screw	BSZ26P080FMC	52	Plug(CN881)	CKS1242
4	Screw	BSZ30P060FMC	53	Connector(CN671)	CKS2212
5	Screw	BMZ30P160FMC	54	Connector(CN451)	CKS2480
6	Cord Assy	CDE4648	55	Mini Pin Jack(CN502)	CKX1046
7	Fuse(10A)	CEK1136	56	****	
8	Cap	CNS1472	57	Holder	CNC6526
9	Resistor	RS1/2P102JL	58	Bracket	CNC6656
10	Cord	CDE4806	59	Bracket	CNC6558
11	Connector	CDE4864	60	Insulator	CNM4684
12-14	****		61	Heat Sink	CNR1408
15	Case	CNB2063	62	FM/AM Tuner Unit	CWE1416
16	Holder	CNC4946	63	Cover	CNS3477
17	Holder	CNC4963	64	Detach Grille Assy	CXA8200
18	Insulator	CNM4523	65	Panel Assy	CXA8711
19	Panel	CNS3113	66-68	****	
20	Cap	CNV2680	69	Cord	CDE4998
21	Tuner Amp Unit	CWX1923	70	Plug(CN609)	CKS1224
22	Case Assy	CXA7194	71	****	
23	Remote Control Assy	CXA7610	72	Connector(CN651)	CKS2774
24	Chassis Unit	CXA8212	73	Screw	BSZ30P060FMC
25	CD Mechanism Module	CKX5011	74	Holder	CNC6141
26-27	****		75	Holder	CNC6431
28	Screw	CBA1284	76	Holder	CNV1906
29	Spring	CBH-865	77	Screw	BPZ20P080FZK
30	Handle	CNC4947	78	Button(OPEN)	CAC4475
31	Bush	CNV1009	79	Button(1-12)	CAC4476
32-33	****		80	Button(SOURCE)	CAC4478
34	IC(IC551)	PAL003A	81	Button(FUNCTION)	CAC4479
35	Lamp(IL671)	CEL1150	82	Button(<I>,SHIFT)	CAC4481
36	IC(IC971)	PA2024A	83	Button(SS,DM,AF,TA)	CAC4511
37	Screw	BSZ26P050FMC	84	Button(+,-)	CAC4648
38	Holder	CNC5735	85	Spring	CBH1844
39	Holder	CNC5736	86	Key Board Unit	CVM4471
40	Inverter Unit	CWM4531	87	Grille Unit	CXA8322
41	Screw	BSZ26P140FMC	88	Cover Unit	CXA8707
42	Cord	CDE4993	89	Screw	BPZ20P060FMC
43	Cord	CDE4995	90	Screw(M2x3)	CBA1082
44	Antenna Cable	CDH1146	91	Screw(M2x4)	CBA1176
45	Clamper	CEF1004	92	Washer	CBF1001
46	Clamper	CEF1006	93	Spring	CBH1528
47	Plug(CN901)	CKM1187	94	Spring	CBH1660
48	Plug(CN652,674)	CKS-783	95	Spring	CBH1696
49	****		96	Connector	CKS2780

Mark No.	Description	Part No.	Mark No.	Description	Part No.
97	Roller	CLA2041	* 117	Spacer	CNM4753
98	Arm	CNC5640	118	Connector	CNV4430
99	Sheet	CNM4179	119	Guide	CNV4431
100	P.C.Board	CNP3847	120	Connector(CN4901)	CKS2733
101	Holder	CNV2141	121	EL(CN902)	CEL1424
102	Cover	CNV3965	122	LCD(LCD901)	CAW1332
103	Holder	CNV4105	123	Plug(CN672)	CKS1222
104	Holder Unit	CXA7077	124	IC(IC991)	NJM78M05A
105	Damper Unit	CXA7159	125	Transistor(Q982)	2SD2396
106	Holder Unit	CXA7794	126	Screw	BSZ30P060FMC
107	Holder Unit	CXA7959	127-140	****	
108	Panel Unit	CXA8708	141	DSP Module	CWV1062
109	Screw	PMS20P030FZK	142,143	****	
110	Holder	CNC6555	144	Cushion	CNM4387
111	Cord	CDE4387	145	Holder	CNC6469
112	****		146-148	****	
113	Holder	CNC6142	* 149	Spacer	CNM4888
114	Film	CNM4349			
* 115	Spacer	CNM4751			
* 116	Spacer	CNM4752			

- The DEH-P825/UC, DEH-P823/ES, and DEX-P99/UC Parts Lists enumerate the parts which differ from those enumerated in the DEH-P825/UC Parts List only. The parts other than those enumerated in the former are identical with those in the latter, to which you are requested to refer, accordingly. The DEH-P825R/EW Parts List is given on page 82.

Mark No.	Description	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
5	Screw	BMZ30P160FMC	BMZ30P160FMC	BMZ30P160FMC	****
6	Cord Assy	CDE4648	CDE4976	CDE4648	****
6	Cord	****	****	****	CDE4970
7	Fuse(10A)	CEK1136	CEK1136	CEK1136	****
7	Fuse(3A)	****	****	****	CEK1134
15	Case	CNB2063	CNB2063	CNB2063	CNB2055
20	Cap	CNV2680	CNV2680	CNV2680	****
21	Tuner Amp Unit	CWX1923	CWX1924	CWX1926	CWX1925
24	Chassis Unit	CXA8212	CXA8361	CXA8361	CXA8532
34	IC(IC551)	PAL003A	PAL003A	PAL003A	****
41	Screw	BSZ26P140FMC	BSZ26P140FMC	BSZ26P140FMC	****
42	Cord	CDE4993	CDE4993	CDE4993	****
43	Cord	CDE4995	CDE4995	CDE4995	****
49	Plug(CN961)	****	****	****	CKS1222
51	Plug(CN882)	CKS1238	CKS1238	CKS1238	****
52	Plug(CN881)	CKS1242	CKS1242	CKS1242	****
58	Bracket	CNC6656	CNC6656	CNC6656	****
59	Bracket	CNC6558	CNC6558	CNC6559	CNC6557
61	Heat Sink	CNR1408	CNR1408	CNR1408	****
62	FM/AM Tuner Unit	CWE1416	CWE1417	CWE1417	CWE1417

Mark No.	Description	DEH-P825R/EW Part No.	DEH-P825/UC Part No.	DEH-P823/ES Part No.	DEX-P99/UC Part No.
64	Detach Grille Assy	CXA8200	CXA8201	CXA8203	CXA8202
65	Panel Assy	CXA8711	CXA8711	CXA8711	CXA8327
79	Button(1-12)	CAC4476	CAC4544	CAC4545	CAC4544
83	Button(SS,DM,AF,TA)	CAC4511	****	****	****
83	Button(SS,DM,ID,CLOCK)	****	CAC4480	****	****
83	Button(SS,DM,BSM,CLOCK)	****	****	CAC4526	****
83	Button(DSP,DM,ID,CLOCK)	****	****	****	CAC4525
86	Key Board Unit	CWM4471	CWM4472	CWM4472	CWM4473
87	Grille Unit	CXA8322	CXA8323	CXA8325	CXA8324
108	Panel Unit	CXA8708	CXA8708	CXA8708	CXA8347
122	LCD(LCD901)	CAW1332	CAW1333	CAW1333	CAW1363
126	Screw	BSZ30P060FMC	BSZ30P060FMC	BSZ30P060FMC	****
127	Screw	****	****	****	BSZ30P060FMC
128	Holder	****	****	****	CNC6143
129	Insulator	****	****	****	CNM4573
130	Insulator	****	****	****	CNM4760
131	Shield	****	****	****	CNC6274
132	Insulator	****	****	****	CNM4814
133	DC-DC Converter Unit	****	****	****	CWM4538
134	Insulator	****	****	****	CNM4610
135	Shield	****	****	****	CNC6224
136	Plug(CN4052)	****	****	****	CKS1059
137	Cord(CN4051)	****	****	****	CDE4807
138	Cord	****	****	****	CDE4786
139	Cap	****	****	****	CNS1472
140	Resistor	****	****	****	RS1/2P102JL
142	Cord	****	****	****	CDE4801
143	Cap	****	****	****	CNV2680
146	Insulator	****	****	****	CNM4815
147	High Output Unit	****	****	****	CWX1922
148	Spacer	****	****	****	CNM4868

12.2 CD MECHANISM MODULE

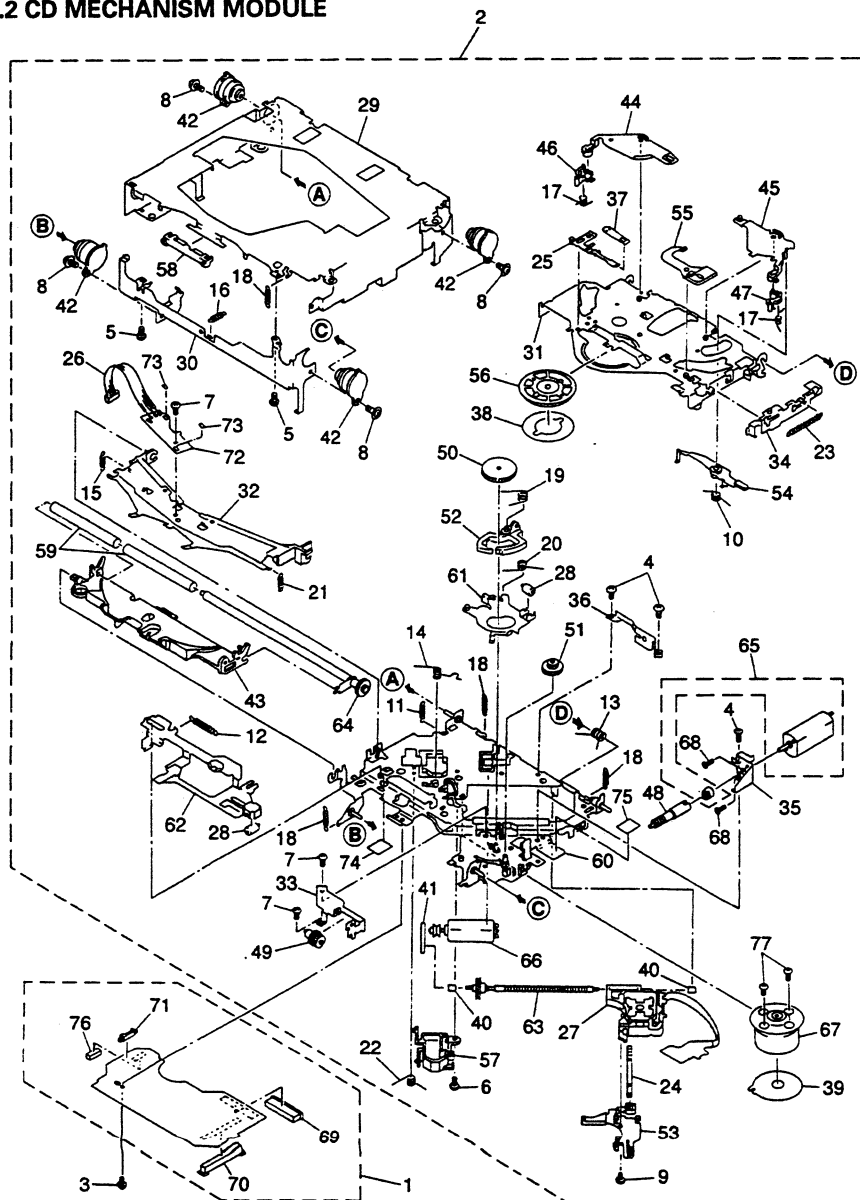


Fig.26

● Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Control Unit	CWX1964	46	Arm	CNV4124
2	CD Mechanism Unit	CXA8880	47	Arm	CNV4125
3	Screw	PMS26P035FMC	48	Gear	CNV4128
4	Screw	BMZ20P030FMC	49	Gear	CNV4129
5	Screw	BSZ20P040FMC	50	Gear	CNV4130
6	Screw(M2×3)	CBA1077	51	Gear	CNV4131
7	Screw(M2×2)	CBA1250	52	Arm	CNV4136
8	Screw(M2×5)	CBA1296	53	Holder	CNV4663
9	Screw(M2×3.85)	CBA1362	54	Arm	CNV4138
10	Spring	CBH1916	55	Arm	CNV4139
11	Spring	CBH1724	56	Clamper	CNV4140
12	Spring	CBH1727	57	Holder	CNV4664
13	Spring	CBH1729	58	Guide	CNV4484
14	Spring	CBH1730	59	Roller	CNV4509
15	Spring	CBH1731	60	Chassis Unit	CXA8561
16	Spring	CBH1732	61	Arm Unit	CXA8565
17	Spring	CBH1736	62	Lever Unit	CXA8567
18	Spring	CBH1745	63	Screw Unit	CXA8699
19	Spring	CBH1832	64	Gear Unit	CXA8701
20	Spring	CBH1833	65	Load Motor Unit(M3)	CXA8702
21	Spring	CBH1848	66	CRG Motor Unit(M2)	CXA8986
22	Spring	CBH1849	67	Motor Unit(M1)	CXA9101
23	Spring	CBH1863	68	Screw	JFZ20P025FMC
24	Spring	CBL1214	69	Connector(CN101)	CKS1953
25	Spring	CBL1269	70	Connector(CN701)	CKS2774
26	Connector(CN1)	CDE4576	71	Connector(CN801)	CKS2196
27	PU Unit	CGY1070	* 72	Gathering P.C.Board	CNX2445
28	Roller	CLA2627	73	Photo-transistor(Q1, 2)	CPT-230S-X
29	Frame	CNC5796	74	Sheet	CNM4873
30	Frame	CNC5797	75	Cushion	CNM3917
31	Arm	CNC5799	76	Connector(CN702)	CKS2191
* 32	Arm	CNC5801	77	Screw	JGZ17P025FZK
33	Bracket	CNC5871			
34	Lever	CNC6054			
35	Bracket	CNC6056			
* 36	Bracket	CNC6376			
37	Spacer	CNM3315			
38	Sheet	CNM4849			
39	P.C.Board	CNP4230			
40	Bearing	CNR1415			
41	Belt	CNT1071			
42	Damper	CNV3974			
43	Arm	CNV4120			
44	Arm	CNV4122			
45	Arm	CNV4123			

13. PACKING METHOD

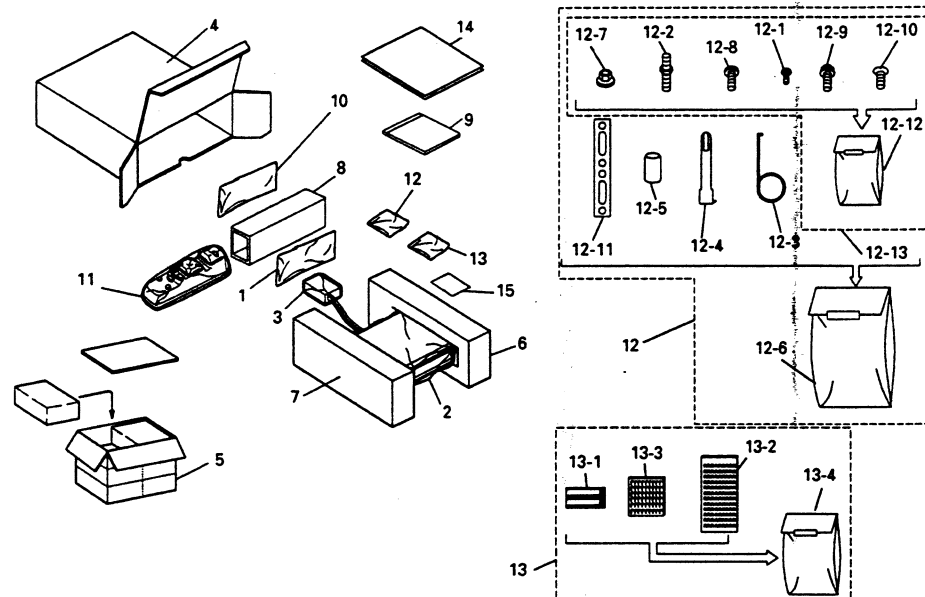


Fig.27

● Owner's Manual
● Installation Manual

Part No.	Model	Language
CRD1928	DEH-P825R/EW	English,Spanish
CRD1929	DEH-P825R/EW	German,French
CRD1989	DEH-P825R/EW	Italian,Dutch
CRD2034	DEH-P825R/EW	English,Italian,French,German,Dutch,Spanish
CRD1931	DEH-P825/UC	English,French
CRD1979		
CRD1932	DEH-P823/ES	English,Arabic
CRD1980	DEH-P823/ES	English,French,Spanish,Arabic
CRD1990	DEH-P823/ES	French,Spanish
CRD1930	DEX-P99/UC	English,French
CRD1978		

● Parts List

Mark No.	Description	DEH-P825R/EW	DEH-P825/UC	DEH-P823/ES	*:Non Spare Part DEX-P99/UC
		Part No.	Part No.	Part No.	Part No.
1	Cord Assy	CDE4648	CDE4976	CDE4648	****
	Cord	****	****	****	CDE4970
2	Polyethylene Bag	CEG-162	CEG1173	CEG-162	CEG1173
3	Air Cushioned Bag	CEG1192	CEG1192	CEG1192	CEG1192
4	Carton	CHG2831	CHG2834	CHG2832	CHG2833
5	Contain Box	CHL2831	CHL2834	CHL2832	CHL2833
6	Protector(R)	CHP1766	CHP1766	CHP1766	CHP1766
7	Protector(L)	CHP1767	CHP1767	CHP1767	CHP1767
8	Spacer	CHW1433	CHW1433	CHW1433	CHW1433
9	CD	CPJ1004	****	CPJ1004	****
10	Case Assy	CXA7194	CXA7194	CXA7194	CXA7194
11	Remote Control Assy	CXA7610	CXA7610	CXA7610	CXA7610
12	Accessory Assy	CEA2065	CEA2066	CEA2067	CEA2066
12-1	Screw(M2x6)	CBA1120	CBA1120	CBA1120	CBA1120
12-2	Screw	CBA1284	CBA1284	CBA1284	CBA1284
12-3	Spring	CBH-865	CBH-865	CBH-865	CBH-865
12-4	Handle(x2)	CNC4947	CNC4947	CNC4947	CNC4947
12-5	Bush	CNV1009	CNV1009	CNV1009	CNV1009
* 12-6	Polyethylene Bag	E36-615	CEG-158	CEG-158	CEG-158
12-7	Nut(x2)	****	NF50FMC	****	NF50FMC
12-8	Screw(x4)	****	TRZ50P080FMC	TRZ50P080FMC	TRZ50P080FMC
12-9	Screw	****	CBA-102	****	CBA-102
12-10	Screw(x4)	****	CRZ50P090FMC	CRZ50P090FMC	CRZ50P090FMC
12-11	Strap	****	CNF-111	****	CNF-111
* 12-12	Polyethylene Bag	****	CEG-127	CEG-127	CEG-127
12-13	Screw Assy	****	CEA2068	CEA2069	CEA2068
13	Accessory Assy	CEA2081	CEA2081	CEA2081	CEA2081
13-1	Battery	CEX1006	CEX1006	CEX1006	CEX1006
13-2	Fastener(Soft)	CNM3729	CNM3729	CNM3729	CNM3729
13-3	Fastener(Rough)(x2)	CNM4256	CNM4256	CNM4256	CNM4256
* 13-4	Polyethylene Bag	E36-615	E36-615	E36-615	E36-615
14-1	Polyethylene Bag	CEG1116	CEG1116	CEG1116	CEG1116
14-2	Owner's Manual	CRD1928	CRD1931	CRD1932	CRD1930
14-3	Owner's Manual	CRD1929	****	****	****
14-4	Installation Manual	CRD2034	CRD1979	CRD1980	CRD1978
14-5	Owner's Manual	CRD1989	****	CRD1990	****
* 14-6	Passport	CRY1013	****	****	****
* 14-7	Warranty Card	CRY1087	****	****	CRY1070
* 14-8	Card	****	ARY1048	****	****
14-9	Chart	****	CRB1375	****	CRB1374
* 14-10	Caution Card	****	****	****	CRP1144
* 15	Caution Card	CRP1145	CRP1145	CRP1145	CRP1145

Service Manual



ORDER NO.
CRT1821

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P825R

X1B/EW



- This additional service manual is designed to be used together with Model DEH-P825R/EW Service Manual CRT1805. Refer to it for finding parts numbers and adjustment, etc. which are not shown in this manual.

PACKING METHOD

● Parts List (Page 88)

*: Non Spare Part

Mark	No.	Description	DEH-P825R/EW	DEH-P825R/X1B/EW
			Part No.	Part No.
	1	Cord Assy	CDE4648	UDE4648
	2	Polyethylene Bag	CEG-162	UEG-002
	4	Carton	CHG2831	UHG-045
	5	Contain Box	CHL2831	UHD-002
	6	Protector(R)	CHP1766	UHP-009
	7	Protector(L)	CHP1767	
	12	Accessory Assy	CEA2065	UEA2065
	12-4	Handle(x2)	CNC5395	CNC4947
*	12-6	Polyethylene Bag	E36-615	CEG-127
	13	Accessory Assy	CEA2081	UEA2081
	13-1	Battery	CEX1006	UEX1006
	13-2	Fastener(Soft)	CNM3729	UNM3729
	13-3	Fastener(Rough)(x2)	CNM4256	UNM4256
	14-1	Polyethylene Bag	CEG1116	UEG1116
	14-2	Owner's Manual	CRD1928	URD1928
	14-3	Owner's Manual	CRD1929	URD1929
	14-4	Installation Manual	CRD2034	URD2034
	14-5	Owner's Manual	CRD1989	URD1989
	14-6	Passport	CRY1013	* CRY1014
*	14-7	Warranty Card	CRY1087	URY1087
*		Caution Card	CRD1145	URP1145

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

© PIONEER ELECTRONIC CORPORATION 1995

K-ZZP. DEC. 1995 Printed in Japan

Service Manual



ORDER NO.
CRT1821

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS TUNER

DEH-P825R

X1B/EW



- This additional service manual is designed to be used together with Model DEH-P825R/EW Service Manual CRT1805. Refer to it for finding parts numbers and adjustment, etc. which are not shown in this manual. 4831# 2007/62

PACKING METHOD

● Parts List (Page 88)

*: Non Spare Part

Mark	No.	Description	DEH-P825R/EW	DEH-P825R/X1B/EW
			Part No.	Part No.
	1	Cord Assy	CDE4648	UDE4648
	2	Polyethylene Bag	CEG-162	UEG-002
	4	Carton	CHG2831	UHG-045
	5	Contain Box	CHL2831	UHD-002
	6	Protector(R)	CHP1766	UHP-009
	7	Protector(L)	CHP1767	
	12	Accessory Assy	CEA2065	UEA2065
	12-4	Handle(x2)	CNC5395	CNC4947
*	12-6	Polyethylene Bag	E36-615	CEG-127
	13	Accessory Assy	CEA2081	UEA2081
	13-1	Battery	CEX1006	UEX1006
	13-2	Fastener(Soft)	CNM3729	UNM3729
	13-3	Fastener(Rough)(x2)	CNM4256	UNM4256
	14-1	Polyethylene Bag	CEG1116	UEG1116
	14-2	Owner's Manual	CRD1928	URD1928
	14-3	Owner's Manual	CRD1929	URD1929
	14-4	Installation Manual	CRD2034	URD2034
	14-5	Owner's Manual	CRD1989	URD1989
	14-6	Passport	CRY1013	* CRY1014
*	14-7	Warranty Card	CRY1087	URY1087
*		Caution Card	CRD1145	URP1145

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 501 Orchard Road, #10-00, Lane Crawford Place, Singapore 0923

© PIONEER ELECTRONIC CORPORATION 1995

K-ZZP. DEC. 1995 Printed in Japan

ELECTRICAL PARTS LIST

● Parts List(Page 29)

Tuner Amp Unit

	DEH-P825R/EW	DEH-P825R/X1B/EW
Circuit Symbol & No.	Part No.	Part No.
D502,672,941,991	MA151WK	DAN202K
S601	CSG1046	USG1046
C880	CSZSR100M10	*****

Key Board Unit

	DEH-P825R/EW	DEH-P825R/X1B/EW
Circuit Symbol & No.	Part No.	Part No.
R4946,4947,4948,4949,4950	RS1/4S151J	RS1/4S391J
R4951,4952,4959,4960	RS1/4S151J	RS1/4S391J
R4961,4962	RS1/2S241J	RS1/2S471J

EXPLODED VIEW AND PARTS LIST**CHASSIS**

● Parts List(Page 82)

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	6	Cord Assy	CDE4648	UDE4648
	21	Tuner Amp Unit	CWX1923	UWX1923
	25	CD Mechanism Module	CXK5011	UXK5011
	30	Handle	CNC5395	CNC4947
	40	Inverter Unit	CWM4531	UWM4531
	44	Antenna Cable	CDH1146	UDH1146
	64	Detach Grille Assy	CXA8200	UXA8200
	65	Panel Assy	CXA8711	UXA8711
	86	Key Board Unit	CWM4471	UWM4471
	111	Cord	CDE4387	UDE4387
	118	Connector	CNV4430	UNV4430

CD MECHANISM MODULE

● Parts List(Page 86)

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	1	Control Unit	CWX1964	UWX1964

ELECTRICAL PARTS LIST

● Parts List(Page 29)

Tuner Amp Unit

	DEH-P825R/EW	DEH-P825R/X1B/EW
Circuit Symbol & No.	Part No.	Part No.
D502,672,941,991	MA151WK	DAN202K
S601	CSG1046	USG1046
C880	CSZSR100M10	*****

Key Board Unit

	DEH-P825R/EW	DEH-P825R/X1B/EW
Circuit Symbol & No.	Part No.	Part No.
R4946,4947,4948,4949,4950	RS1/4S151J	RS1/4S391J
R4951,4952,4959,4960	RS1/4S151J	RS1/4S391J
R4961,4962	RS1/2S241J	RS1/2S471J

EXPLODED VIEW AND PARTS LIST**CHASSIS**

● Parts List(Page 82)

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	6	Cord Assy	CDE4648	UDE4648
	21	Tuner Amp Unit	CWX1923	UWX1923
	25	CD Mechanism Module	CXK5011	UXK5011
	30	Handle	CNC5395	CNC4947
	40	Inverter Unit	CWM4531	UWM4531
	44	Antenna Cable	CDH1146	UDH1146
	64	Detach Grille Assy	CXA8200	UXA8200
	65	Panel Assy	CXA8711	UXA8711
	86	Key Board Unit	CWM4471	UWM4471
	111	Cord	CDE4387	UDE4387
	118	Connector	CNV4430	UNV4430

CD MECHANISM MODULE

● Parts List(Page 86)

Mark	No.	Description	DEH-P825R/EW Part No.	DEH-P825R/X1B/EW Part No.
	1	Control Unit	CWX1964	UWX1964